# Kluane

## National Park Reserve Management Plan

# Kluane

**NATIONAL PARK RESERVE**

# MANAGEMENT PLAN

**APPROVED:**

THE HONOURABLE LUCIEN BOUCHARD P.C./M.P.
MINISTER OF THE ENVIRONMENT
MAY 23, 1990

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Environment Canada Parks Service
Environnement Canada Service du Parcs

## *FOREWORD*

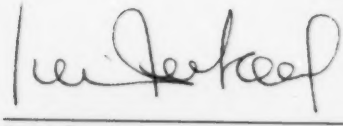
*I am pleased to approve the revised Park Management Plan for Kluane National Park Reserve. It is a reflection of the Canadian Parks Service's continued commitment to sustain the ecological integrity of one of Canada's great northern national parks.*

*The proposal to develop a public access system on the east side of the Slims River to the Kaskawulsh Glacier has been dropped due to environmental and financial constraints. Instead, an environmentally and economically sound access system is proposed in the area of the Dezadeash and Alsek valleys. I have rejected proposals for new road developments in favour of controlled air and water access.*

*I know there have been concerns that incremental use could degrade the qualities of this pristine area. Hence, the plan outlines criteria for preserving wilderness. Future actions will be measured against these criteria to ensure that Kluane's character remains uncompromised.*

*The protection and preservation of our heritage resources can only be guaranteed if corresponding efforts in research, monitoring and environmental assessment are in place to direct resource management. A priorized research program has been outlined to ensure that compatible public use is balanced by vigorous protection.*

*In the spirit and intent of recent amendments to the* National Parks Act, *public consultation played a major role in the planning program. I would like to thank the people of the Yukon for their strong show of interest in the future of Kluane, and particularly those who took the time to organize groups and individuals to voice their opinion.*



Lucien Bouchard
Minister of the Environment

*May 23, 1990*

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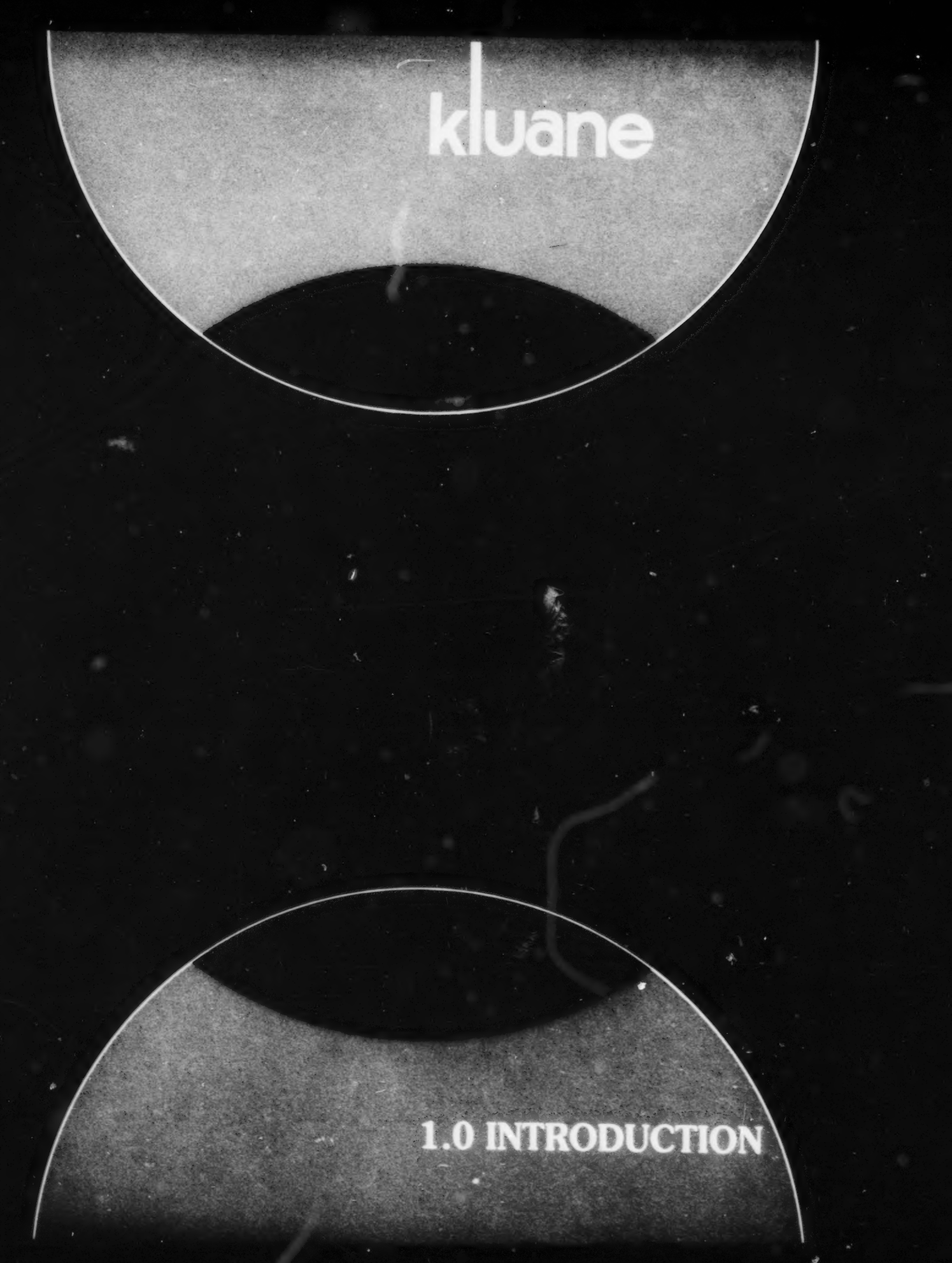


# 1.0 INTRODUCTION

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## 1.1 EXECUTIVE SUMMARY

Maintenance of Kluane's wilderness character remains the park's *primary* objective. Sustainable wilderness management criteria are proposed by which given actions or developments may be tested to ensure their compatibility with the park's objectives.

Resource management will continue the implementation of the Park Conservation Plan with particular emphasis on the management of grizzly bears, Dall's sheep, and aquatic resources. A closely aligned Environment Assessment and Review Process is detailed.

One objective of the revised Kluane Park Management Plan is to increase access opportunities for visitors to see Kluane's interior firsthand in ways that ensure that the park's wilderness integrity is preserved.

The revised management plan recognizes and responds to the needs of Kluane's visitors, particularly their age, motivation, market demands and travel patterns. A new marketing image and direction is proposed and is the basis for access development.

The predominant emphasis on visitor use is along Kluane's peripheral areas. Day-use areas, exhibits, interpretation, short walks and self-guiding trails will be augmented or enhanced.

Particular emphasis is placed on the controlled use of aircraft and watercraft to reach interior areas of Kluane, eliminating the need for road construction. Increased use of these modes is also proposed for greater support of backcountry wilderness recreation.

A broad-based public consensus emerged supporting the general provisions of this plan. The public participation program is summarized in Appendix 1.

Highlights of the plan include the following:

- expanded special area (Zone I) protection for grizzly bears, including long term studies to better understand bear ecology and behaviour;
- special preservation area (Zone I) management strategies are proposed for protection of the Dall's sheep population at Sheep Mountain on the Alaska Highway;
- development of a new marketing direction for Kluane as "the Yukon's premier accessible wilderness area";
- day-use area developments at Mush Lake, Alsek Pass and Sheep Creek;
- greater use of aircraft for touring the Icefield Ranges, aircraft use for wilderness recreation support (drop-off, pick-up, supplies) at select areas such as the Lowell Glacier and the Donjek Valley;
- feasibility studies and a trial program to determine the suitability and compatibility for private sector motor-assisted boat day tours from Haines Junction to the Lowell Glacier;
- provisions for day and overnight rafting on the Dezadeash and Alsek rivers;
- co-ordinated regional planning with the Government of the Yukon (land use, tourism, conservation strategies, etc.); and
- recognition of the comprehensive land claims process under negotiation between the Council for Yukon Indians (CYI), the Government of the Yukon, and the Government of Canada.

*Planning the park*

*Canadian Parks Service (C.P.S.)*

## 1.2 BASIS FOR MANAGEMENT PLAN REVISION

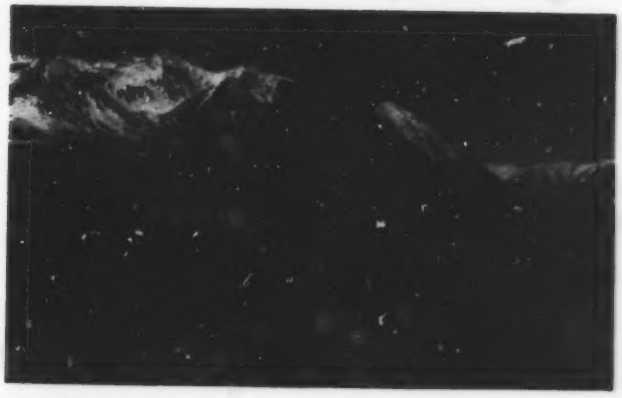
Kluane's first Park Management Plan was approved in 1980 after extensive public participation. Designed to serve a fifteen year time frame, the 1980 plan did not anticipate the fiscal restraints of the 1980's. Attempts to attract private sector investment in the Slims Valley access proposal failed to materialize and by 1985 it was apparent that the Canadian Parks Service (CPS) could not implement the major access provisions alone. At the same time, the uncertainty of the land claims process and park-specific land selection delayed the start of a management plan review until the fall of 1988.

Recent amendments to the *National Parks Act* require that Park Management Plans be tabled by the Minister of the Environment before Parliament every five years. Following the Ministerial approval of the Kluane National Park Management Plan, the five year period will start to the next formal review.

The basis of a revised Park Management Plan stems from fundamental factors that influence the decision-making process (Fig. 1).

1. Federal government policies, national parks legislation, associated regulations and park policies pursuant to the Act provide the basic legal and regulatory guidance for national parks.
2. The evaluation of the 1980 Park Management Plan shows the strengths of that document, which will be advanced, and its weaknesses, which require revision or new direction.
3. Regional and territorial priorities reflect concerns such as native land claim settlements, conservation, regional economic development, tourism, and other economic and social aspirations that affect land use in and around the park.
4. Kluane's natural and cultural resources, their ability to sustain use and their requirements for protection, determine the management approaches for resource protection, interpretation, visitor activities and maintenance.
5. Kluane's national park objectives were determined by the Park Purpose Statement, previous park planning programs, and guidance arising from new directions in the CPS program.
6. Public participation is a cornerstone of the CPS National Park Planning Process and a requirement of the *National Parks Act*. CPS carries out public participation at the national, regional and local levels.

Figure 1. Basis for Park Management Plan review.



*Top to bottom*

| | |
|---|---|
| *Kluane Visitor Reception Centre — Haines Junction* | *C.P.S.* |
| *Our Lady of the Way Church — Haines Junction* | *C.P.S.* |
| *Abandoned Cabin — Silver City* | *C.P.S.* |
| *Sculpture — Haines Junction* | *C.P.S.* |

# 2.0 BACKGROUND

# 2.0 BACKGROUND

## 2.1 PARK PURPOSE STATEMENT

The purpose of Kluane National Park Reserve is to protect for all time, and to present to the public, a natural area of Canadian significance representative of the Northern Coast Mountains Natural Region.

## 2.2 PHYSICAL DESCRIPTION

Kluane was one of the first three national parks established north of 60 degrees latitude in 1972 (along with Nahanni and Auyuittuq national parks in the Northwest Territories). Located in the southwestern corner of the Yukon, the establishment of Kluane brought to fruition a thirty year effort to protect the area and added 22,015 sq. km of exceptionally scenic lands to Canada's national parklands (Fig. 2). Appendix 2 details Kluane's establishment history.

The heart of Kluane is the St. Elias Mountains. They create a coastal barrier between the Pacific Ocean and the lower mountains and plateaux of the Yukon interior. Storms from the Gulf of Alaska drop their moisture load on the peaks of the St. Elias leaving a rain shadow in their lee and an arid boreal climate. In the St. Elias, these storms have created the largest non-polar icefields in the world, thousands of feet thick - the Icefield Ranges.

*Bates Lake* *C.P.S.*

Two-thirds of the park is occupied by the Icefield Ranges. They contain Canada's highest mountains: Mt. St. Elias (5488 m), Mt. Steele (4988 m), Mt. Lucania (5139 m) and Mt. Logan, the highest at 5950 metres.

Radiating from the icefields is a network of valley-bound glaciers, including the Steele, Hubbard, Kaskawulsh, Donjek and the Lowell. These glaciers are unmatched in Canada. Vestiges of a time when most of the country was under ice, Kluane is a microcosm of the Ice Age, a landscape of high mountains, icefields, and the plants and animals that survive and thrive in their shadow.

The other major mountain chain of the park is the Kluane Ranges (or Front Ranges) bordering the Alaska and Haines highways. This mountain barrier is broken by a number of river valleys such as the Duke, Slims, Jarvis and Dezadeash/Alsek. Between these ranges and the Icefields lies the Duke Depression, a complex terrain of vegetated valleys and plateaux. These three distinguishable regions (Icefield Ranges, Duke Depression, and Kluane Ranges) make up the major physiographic features of the park.

Park landforms are characterized by steep slopes, cliffs and mass wasting. Stream erosion and glacial scouring is prevalent. In the valleys, landforms are mainly scoured bedrock and outwash plains. Glaciated areas are covered by a thin veneer of consolidated materials (shattered bedrock, erratics, fill, sand and silt).

Colluvial deposits are products of mass wastage (rock falls, landslides, mudslides, downslope creep and solifluctions). These materials often descend in dramatic fashion following extensive rains as in 1988 when the Alaska Highway was severed in two places adjacent to the park boundary. The park is a seismic "hotspot" with frequent tremors and quakes which add to the unstable nature of Kluane's landforms.

Rugged terrain and unstable landforms have hampered and continue today to severely affect attempts to penetrate the park's front range barrier. However, these landscapes have also resulted in the protection of an unparalleled mountain wilderness and its wildlife populations.

## 2.3 HERITAGE RESOURCES & PROCESSES

### 2.3.1 NATURAL HERITAGE RESOURCES

It was Kluane's abundance of wildlife that first brought attention to the park area and led to the Commissioner of the Yukon's recommendation to designate the area a game sanctuary.

Among the large mammals are several species particularly noteworthy for both their rarity and their numbers. Especially significant is Kluane's population of grizzly bear. Perceived to be an indicator species of wildlands, the glacial valleys of Kluane support a healthy population of these large bears, so beleaguered in the few remaining areas of their former range. Their presence has a strong influence on not only Kluane's character but also on its resource and visitor management strategies.

Equally significant is the park's Dall's sheep population, an ungulate more characteristic of the park's northern areas, especially the alpine and sub-alpine zones at Sheep Mountain and the headwaters and drainages of the Slims and Donjek rivers. Other large mammals include moose, black bear, wolverine, coyote, lynx, red fox and wolf. Mountain goats, are also a

*Dall's Sheep* *C.P.S.*

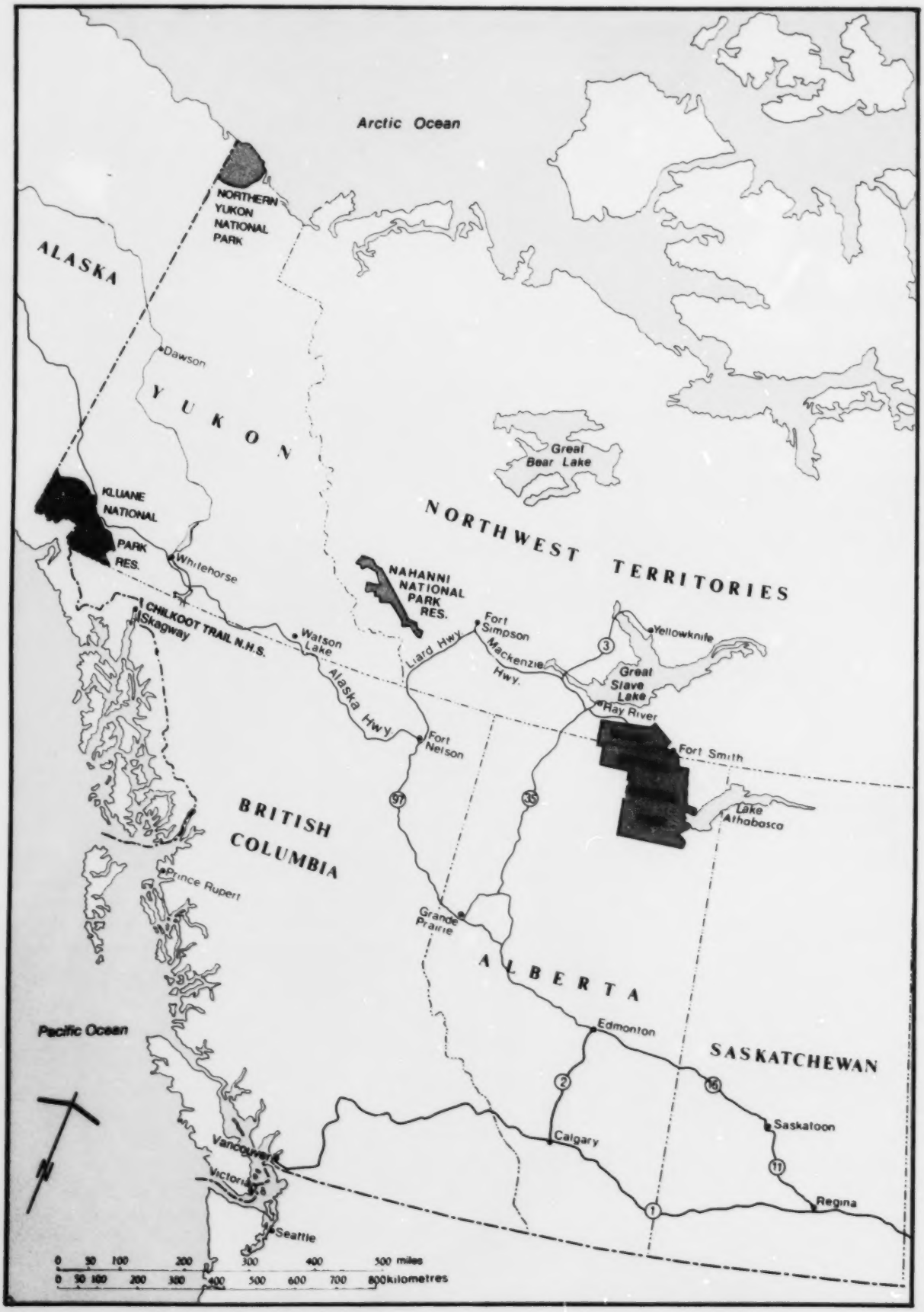



Figure 2. Location of Kluane National Park Reserve.

wilderness species sensitive to disturbance. Most common in southern areas of the park (Auriol Range, Alsek Ranges and Goatherd Mountain area), these animals are at the northern-most limits of their range. Caribou stray into Kluane but are not park residents. Found primarily in the Burwash Uplands near the park's northeast boundary (the site of extensive placer mining activity), these animals are largely outside the park's influence and ability to provide direct protection.

Large mammals are one of Kluane's prime attractions. There are relatively few places for visitors to view wildlife along the Alaska Highway. Kluane provides prime opportunities not only in proximity to the highway as at Sheep Mountain, but also in selected backcountry areas where sightings are almost assured.

The diversity of habitats in Kluane contributes to the great variety of bird life. Over 170 species have been reported including noteworthy raptors such as peregrine falcon, bald and golden eagle.

The lakes and streams of Kluane contain lake trout, northern pike and Arctic grayling. Especially significant are the kokanee salmon of the Sockeye, Louise and Kathleen lakes system. These land-locked salmon are living examples of the power of glaciers and other geomorphological processes to alter animal distribution and evolution.

Kluane exhibits an extraordinarily rich vegetation diversity. The variety of climatic differences in a relatively small area, and other more localized factors such as fire disturbance, geomorphological processes, and elevation, make it possible for park visitors to go from forest to tundra or from swamps to sand dunes. The southern areas of the park display a more maritime climate with ample precipitation, more moderate temperatures and overcast skies. Towards Kluane's northern reaches the climate is colder and drier.

Only 18% of the total park area is vegetated, largely a thin "green belt" area devoid of icefields and ice-choked valleys. The origins of the park's vegetation are complex with ties to boreal forests, cordillera, northern prairies, Arctic Eurasian mountains and steppes, as well as endemic plants found only in Yukon-Alaska.

Vegetation communities in Kluane can be grouped in three broad zones - montane, sub-alpine, and alpine, each with many characteristic associations. Lower valleys and slopes up to 1100 metres form the montane zone dominated by white spruce forests. Besides extensive coniferous and deciduous (aspen and balsam poplar) forest communities, the area includes tall shrub-dominated communities (willow, alder, etc.), bogs and fens. The sub-alpine zone is a band ranging from 1100 to 1400 metres in elevation. Vegetation is characterized by tall (2-4 metre) shrubs, primarily willow species and alder. The alpine zone spreads upwards from 1400 metres and displays a heath-krumholtz (low-shrub and grass) vegetation dominating the lower alpine with dwarf vascular plants forming the higher alpine tundra.

Kluane's vegetation is a reflection of a landscape constantly changing from active geomorphological processes. Many rare species inhabit the park and some represent the only North American records made to date. Kluane's vegetation diversity presents opportunities for the interpretation of adaptation in the shadow of the St. Elias Mountains.

### 2.3.2 CULTURAL HERITAGE RESOURCES

The key elements of the human experience in Kluane are North American native history and prehistory, exploration by European peoples, the gold rush, the building of the Alaska Highway and mountaineering and research in the St. Elias Mountains.

Archaeological evidence suggests that as far back as 10,000 years ago people lived and hunted in the shadows of the St. Elias Mountains. The park area lies adjacent to the assumed migration routes of people who crossed the Bering Land Bridge. The significance of the park area to this migration is that it acted as a barrier which was skirted by the two proposed migration routes; one inland and one now the continental shelf of the Pacific.

The Southern Tutchone people have occupied the Kluane region for at least 4500 years. Their historical lands, roughly coinciding with the present boundaries of the park, served as an economic, political and cultural hinterland to the powerful Chilkat and Tlingit peoples on the Alaskan coast. The Tutchone traded in this corridor between the coastal peoples and the Yukon interior tribes. It is a rare example of a long-standing northern economic and social relationship prior to European contact.

White men played no significant role in the area until the late 1890's. The Klondike Gold Rush sent men through the area in large numbers over the Dalton Trail. The Kluane Range was prospected at the turn of the century resulting in a brief gold rush into the park. The Sheep and Bullion creeks area still retain historical evidence of this period.

*Dalton Post* *C.P.S.*

The Alaska Highway and the Haines Road, hurriedly constructed in response to fears of a Japanese attack on Alaska, is significant to Kluane. It marks the first time the area was serviced by land transportation from the south and constitutes much of the park's boundary today. The history of Canadian mountaineering and glaciological research is also pertinent to the St. Elias Mountains. Today, these traditions continue with mountaineering expeditions and the research activities of the Arctic Institute of North America (University of Calgary) adjacent to the park.

## 2.4 PARK USE, SERVICES AND FACILITIES

### 2.4.1 THE REGION

Kluane lies in the southwestern corner of the Yukon, a 22,000 sq. km wilderness separating northeastern British Columbia and the tidewaters of the Alaskan panhandle from the Yukon/Alaska interior. Traditionally a transportation route rather than a destination, the region retains this characteristic today and presents a fundamental challenge for Kluane's management and development.

### 2.4.1.1 REGIONAL COMMUNITIES

With a total area of 483,500 sq. km and a population of just over 27,000, of which 19,000 is Whitehorse-based, the Yukon is sparsely settled. The Kluane region reflects this general trend.

The village of Haines Junction (pop. 580, 1987 census) is strategically located at the intersection of the Alaska Highway (Yukon Highway #1) and the Haines Highway (Yukon Highway #3). Lying on the eastern edge of the park boundary 160 km west of Whitehorse, the village is Kluane's administrative headquarters and the site of the park's visitor reception centre (Fig. 3).

Other communities in the region include Destruction Bay (pop. 52), Burwash Landing (pop. 94) and Beaver Creek (pop. 91) on the north Alaska Highway near the Canada/U.S. border. To the south along the Haines Highway are such historic settlements as Dalton Post (now abandoned) and Klukshu. The Haines Highway runs 256 km south over the scenic Chilkat Pass to Haines, Alaska (pop. 1,500), a terminal of the Inside Passage coastal ferry system.

*Highway Traffic at Haines Junction* C.P.S.

Haines Junction is by far the largest community offering services. South of the "Junction" along the Haines Highway, very few services are available reflecting the dominance of regional traffic (85% of total) on the Alaska Highway route as well as the absence of year-round communities. North of Haines Junction, Destruction Bay and Burwash Landing cater to highway traffic with overnight accommodation, gas and food services available at both. A number of highway lodges also provide services along the Alaska Highway route.

### 2.4.1.2 REGIONAL LAND USE

While the region bordering the park is sparsely settled by southern standards, land use is varied and extensive.

Private placer gold mining occurs near the park's boundary, primarily on the creeks draining the Kluane Front Ranges and in the south along the Tatshenshini River. Commercial mining (silver, copper, platinum) is also present and is forecast to grow significantly.

Commercial outfitting, guiding, and hunting occurs outside the Kluane Game Sanctuary to the east of the Alaska and Haines highways.

Native traditional use of the region continues today based on patterns established before the 1800's. Many elders know and use traditional hunting and fishing camps. One of the most important sites of the Southern Tutchone is Klukshu (L'ukshu or "Coho Place") which remains seasonally used today to harvest the late summer salmon run.

The Kluane region is not considered a destination. It remains primarily a touring corridor - a route through the Yukon to and from Alaska. Businesses, if they are not seasonal, operate well below capacity in shoulder and "off seasons". However, while the Kluane area is not considered a destination by the tourism industry at large, there are potential destination attractions of which Kluane National Park is seen as being the regional "anchor".

The majority of businesses in the Kluane region depend heavily on tourism and, at least to date, little on mining or light manufacturing. Tourism is seen as the major "*if not the only area of economic development*" (Leverton. 1987). Most regional businesses are service operations catering to highway transportation (accommodation facilities, restaurants, vehicle service centres, souvenir shops, transport and storage services, etc.).

Fishing lodges, aircraft charter firms and guiding services are available. At least seventeen commercial adventure operators advertise guided trips in the park and around the Kluane region. Four firms offer fixed-wing flightseeing tours of the Icefields Range and Mt. Logan. Commercial rafting in the region centres on the Tatshenshini and Alsek rivers (outside the park) primarily by American operators offering trips from Dalton Post to Dry Bay in Glacier Bay National Park, Alaska. Rafting the entire length of the Alsek from the park is hampered by a dangerous, largely impassable canyon at the Tweedsmuir Glacier just south of the park requiring an extensive portage or an airlift.

While the variety of outfitting services seems extensive, most operations are small, often only individuals. Except for flightseeing, most are also geared for visitor trips requiring longer periods of stay and often a degree of physical fitness.

Regional visitor facilities are modest in nature. The region lacks what could be classed as luxury or full-service accommodation. To date, few if any businesses depend solely on park-based visitation.

Territorial campgrounds are maintained at Million Dollar Falls, Kusawa Lake, Pine Lake, and Congdon Creek. However, territorial park development will continue to be slow until the larger issues of the land claims process are settled.

## 2.4.2 THE PARK

### 2.4.2.1 UNESCO WORLD HERITAGE CONVENTION

Kluane is a World Heritage Site. The World Heritage Convention is a United Nations agreement, endorsed by over 100 countries, that recognizes the importance of protecting examples of the world's cultural and natural heritage. The convention states that the significance of these heritage resources transcends national boundaries and should be preserved for all future generations.

Kluane National Park and the adjoining Wrangell-St. Elias National Park in Alaska were jointly nominated to the World Heritage list in 1979.

The obligations for Canada as a signator of the convention are largely met by the existing conservation practices of CPS. The Park Management Plan details the protection and interpretation of the site as required by the convention. CPS maintains a World Heritage Site plaque overlooking Kathleen Lake.

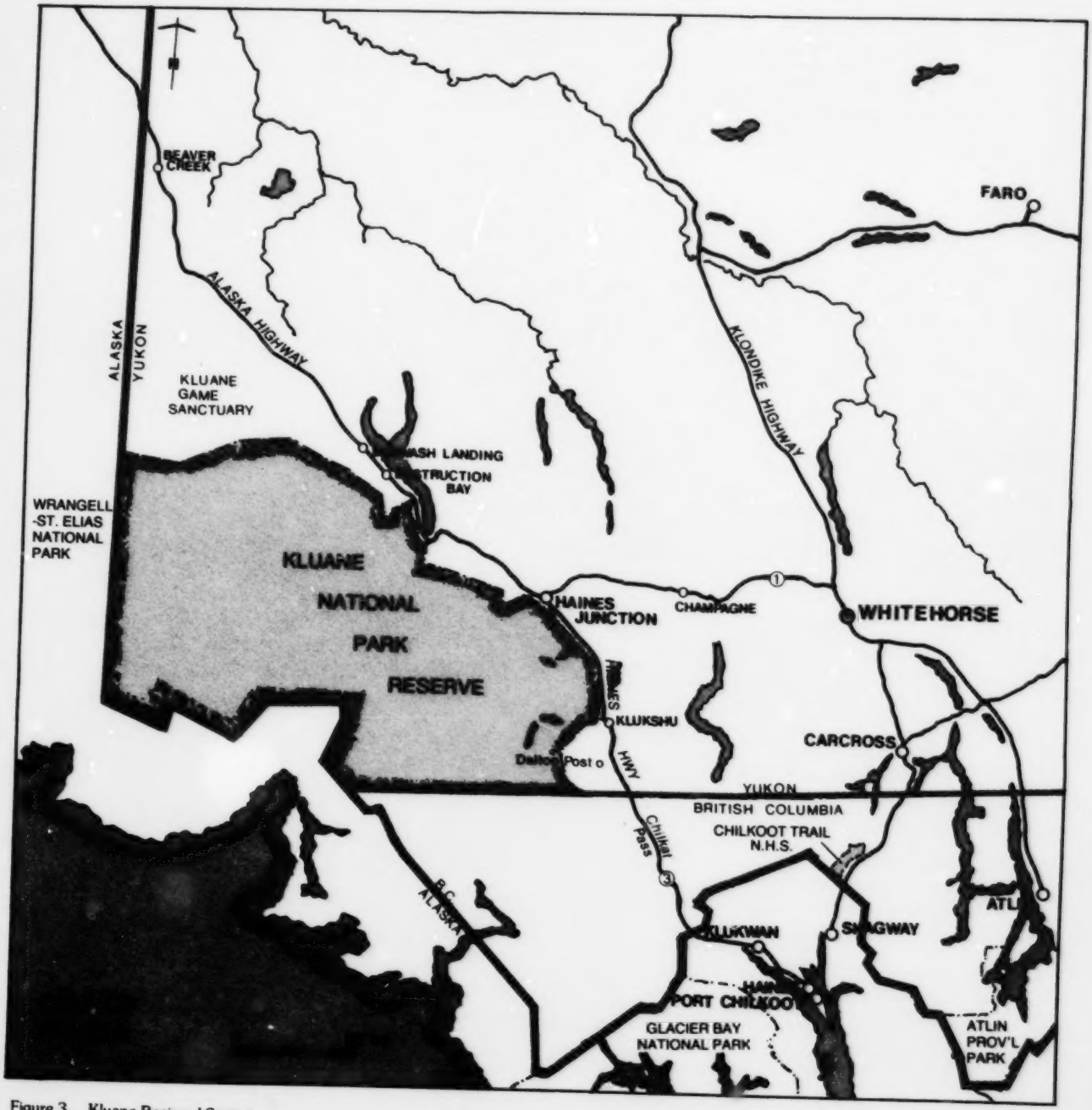
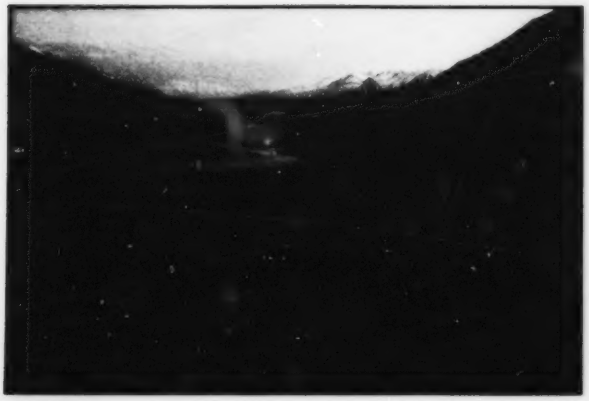



Figure 3. Kluane Regional Setting.

### 2.4.2.2 THE ALSEK: A CANADIAN HERITAGE RIVER

The Canadian Heritage Rivers System (CHRS) is a co-operative program between the Government of Canada, and (to date) eight provinces and both territories. The objective of the CHRS program is to give national recognition to selected rivers in Canada. This will help maintain the unique natural, historical, or cultural features for which these rivers are recognized and commemorated as Heritage Rivers.



*Alsek River* C.P.S.

Fed by the glaciers of the St. Elias Mountains, the Alsek is born at the junction of the Kaskawulsh and Dezadeash rivers. Passing through an undisturbed wilderness region, the massive river valley is home to golden eagles, Dall's sheep, and grizzly bears. The landscapes of the Alsek give visitors an opportunity to view the spectacular beauty of Canada's Northern Coast Mountains and glaciers, part of the largest non-polar icefield in the world. For these features, the Alsek was designated a Canadian Heritage River in 1986. In recognition, CPS will maintain a Canadian Heritage Rivers plaque in Haines Junction commemorating the Heritage River status of the Alsek. The Park Management Plan also fulfils Canada's obligations under the CHRS program by providing the conservation framework to maintain the heritage values of the Alsek.

### 2.4.2.3 EXISTING FACILITIES

Visitor facilities for Kluane are in keeping with the wilderness nature and objectives of the park (Fig. 4).

- Visitor Reception/Administration Centre (Haines Junction): visitor information, displays, maps, slide presentations and park offices.
- Operations Centre: warden station, maintenance compound.
- Kathleen Lake Campground/Day-Use Area: forty-two unit semi-serviced campground, picnic area, kitchen shelter.
- Sheep Mountain Information Centre: Dall's sheep exhibit, viewpoint, information kiosk.
- Walks, trails and hiking routes: various lengths, areas and purposes. Guided walks, campfire programs and other personal interpretation services are provided at selected times and areas.

Although the park is marketed as being adjacent to easy highway access, in fact only a relatively small portion of Kluane rests along the highway corridor. Along the Haines Highway, Kluane is adjacent to the road corridor. West of Haines Junction, the park parallels the Alaska Highway but is essentially separated by the Kluane Game Sanctuary. The boundary touches the highway again for a short section from the Slims River to Congdon Creek, but then is again separated by the sanctuary. Since no access routes pass through or penetrate the park for any distance, few visitors have a direct park experience.

### 2.4.2.4 VISITATION AND PARK USE

The 1987 Yukon Visitor Survey showed that some 88,500 travel parties representing 194,000 visitors came to the Yukon that year. Of these, an estimated 180,000 individuals pass Kluane National Park (both ways) along the north Alaska Highway, the dominant route into and out of the Yukon.

Presently, only 44% (86,000) of visitors stop along the Kluane/North Alaska Highway, usually for less than one day. This reflects the fact that over 90% of Kluane region traffic is enroute to or from Alaska. Adding to the "flow through" character of the region is the fact that the park and its local communities are less than a one day drive from Haines, Alaska, or Whitehorse. This makes the area too close for unscheduled stops for most traffic originating from those locations.

*Kluane Guided Tour* C.P.S.

Visitation to the park's Haines Junction Visitor Reception Centre in 1988 numbered 43,000 people (June to October). Some 34,000 visitors stopped at the Sheep Mountain Information Centre. Of these, 25% and 55% were bus tour passengers at Haines Junction and Sheep Mountain respectively. The rest were independent travellers.

Direct visitor use of the park is low. Registered backcountry overnight use is less than 1000 persons per year. Kathleen Lake campground recorded 1100 parties (party size = 2.75 persons) in 1988. Fewer than 100 people register annually for mountaineering expeditions. Day-use at Sheep Mountain (a major highway access point) is under 2000 persons per year. In short, a considerable market passes by Kluane's front door yet the park remains largely an unknown or missed opportunity for the majority of regional visitors.

The long term reality of Yukon tourism is that the great majority of visitors confine themselves to the Alaska Highway. Their destination is Alaska - in between is simply a road trip.

Until there is a substantial increase in regional tourism-related infrastructure and marketable attractions to encourage longer stays in the region, this is unlikely to change.

Recent surveys by CPS and the Yukon give a comprehensive picture of visitation and the tourism market relevant to this review.

- The Yukon's tourist travel industry has grown at an average rate of 4.4% per year over the past decade. The nature of the market remains largely the same and is not expected to change in the next five to ten years.
- Visitor groups of age 40 years and over represent more than 70% of total visitation. The median age is 55 years.
- The vast majority of visitors to the Kluane region (83%) are Americans followed by Canadians at 14% and other origins at 3%.
- Kluane's tourism market is dominated by independent (non-bus tour) highway travellers (72%), usually equipped with private recreational vehicles. These travellers originate mainly from the western United States, are older and generally retired. Their main destination is Alaska where 11 days of an average 32 day trip are spent.

## 2.5 CONSIDERATIONS

### 2.5.1 NATIVE LAND CLAIMS

The native peoples of the Yukon, represented by the Council for Yukon Indians (CYI), are presently negotiating a comprehensive land claims settlement. Until this process is concluded, Kluane will retain its national park "reserve" status which allows for potential claims by native peoples for any right, title, or interest in the park area.

CPS as part of a team led by Indian and Northern Affairs Canada, will negotiate an agreement with the Champagne-Aishihik Band and Kluane Tribal Council regarding the final establishment of Kluane National Park. Elements of the agreement may include: revision of the present reserve boundaries due to native land selection; advice on park planning and management; the exercise of traditional activities within the park; and, employment and economic opportunities.

Upon the negotiated completion of the land claims process, CPS will amend the Kluane National Park Management Plan to include the provisions of the claims agreement.

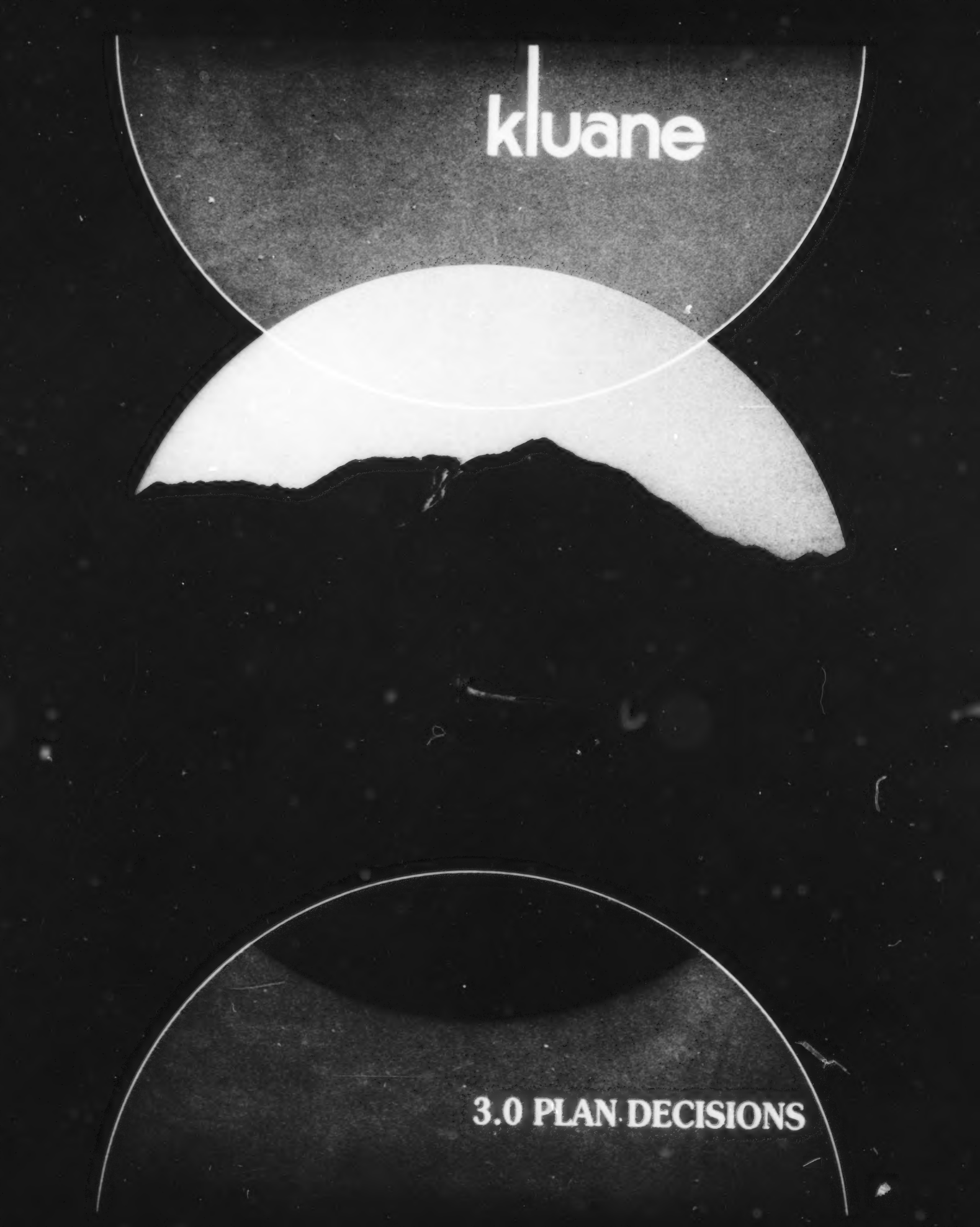
### 2.5.2 REGIONAL TOURISM DEVELOPMENT

Kluane National Park Reserve is widely seen in the Yukon as the tourism anchor for southwestern Yukon. As previously noted, a considerable tourism market passes through the region. However, Kluane cannot meet all expectations for regional development. The role of Kluane in the regional mosaic of economic and tourism development will require considerable co-ordination and communication with regional and territorial authorities.

*Alaska Highway/Haines Junction* C.P.S.

### 2.5.3 WILDERNESS PRESERVATION

While Kluane exhibits natural and cultural resources that stretch superlatives to the limit, the wilderness state of the park remains its most widely perceived quality. Public opinion was unanimous in calling for the preservation of Kluane's wilderness character even though opinions on the scale and level of use differed widely. This reflection of the subjective nature of wilderness highlights the challenges CPS will have to continue to meet. Present and future park management must show convincingly that the management and development of the park will be in harmony with the wilderness character of Kluane.




# 3.0 PLAN DECISIONS

# 3.0 PLAN DECISIONS

## 3.1 PARK MANAGEMENT OBJECTIVES

Park management objectives provide direction for resource preservation, visitor use, administration, and regional co-operation. They are the framework for the future planning, development and operation of Kluane.

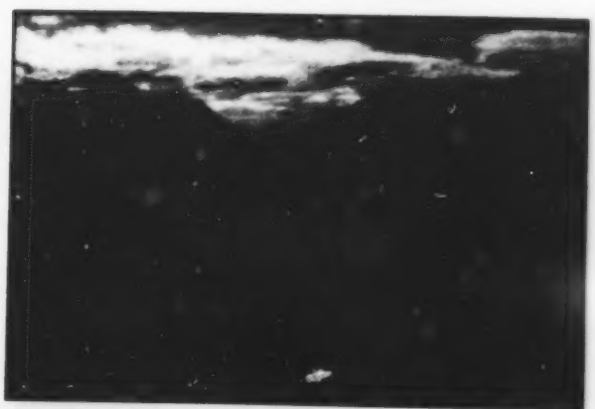
Public feedback supporting Kluane's 1980 primary objective has been unequivocal. This primary objective is: *"to preserve the wilderness character of Kluane National Park Reserve."*

Remaining park objectives are to be achieved within the spirit of the primary objective. These are:

- to protect the natural and cultural resources of Kluane;
- to allow natural processes to continue without interference except to offset man's influence, or to protect unique resources or man-made facilities;
- to expand interpretation and information services to ensure that visitors of all ages and capabilities have opportunities to learn about the four main park themes (Sec. 3.7.3);
- to develop services and programs which will create opportunities for park visitors to gain better access to the interior of the park but which will also ensure that the wilderness character of the park is maintained;
- to improve services and facilities in the highway corridors bordering the park so as to provide convenient and appropriately designed opportunities for park visitors to enjoy the Front Ranges of Kluane;
- to encourage the development, by private interests, of commercial visitor accommodation and related services outside the park along the Haines/Alaska highway corridors;
- to ensure that the management and operation of Kluane National Park Reserve is integrated with the region's activities and concerns in a fashion compatible with the park's other management objectives; and,
- to allow for the involvement of the public with Kluane National Park Reserve through activities such as volunteer programs and co-operating associations.

## 3.2 SUSTAINABLE WILDERNESS MANAGEMENT

It is the intent of the CPS program policy that the principles of sustainable development be a fundamental program guide for the future management of our natural and cultural resources.



*Kluane Wilderness* CPS

The CPS program, and this plan, contribute to the larger national mandate on environmental management: as economic alternatives to more resource depleting land uses, as examples of Canada's highest order of land stewardship, as reserves of biological and genetic materials, as ecological benchmarks, as cultural and historic milestones, all providing inspiration for present and future generations of Canadians.

Public opinion holds that proposals for Kluane's management and development must not degrade the park's wilderness character. Accordingly, a concept of "sustainable wilderness management" emerged from public input with certain criteria that CPS should use to evaluate park management/development proposals or actions and ensure sustainable development. Three criteria, accepted by CPS, were proposed.

- **Compatible**
  Park use and management actions will be compatible (sympathetic and complementary) with the wilderness nature of the park and the sensitivity of its resources.
- **Controllable**
  CPS will ensure that control is maintained with respect to the means, timing, and frequency of a particular park use or management action.
- **Reversible**
  CPS will monitor the effects of park use and management, adjust actions in response if required, or completely remove a use or facility if necessary.

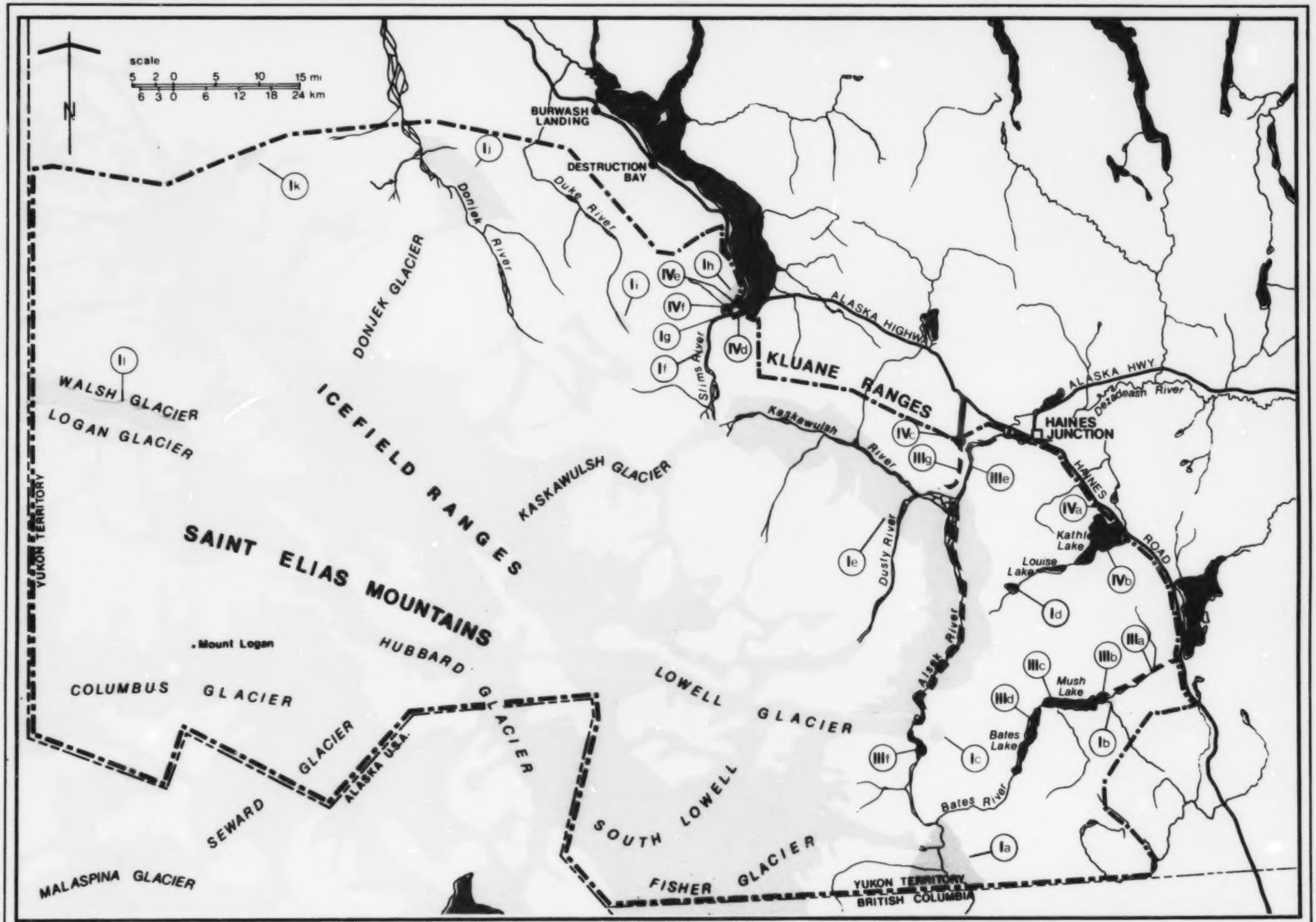
## 3.3 MARKETING DIRECTION

Studies show that emphasizing Kluane's accessibility is the key to developing a successful marketing strategy (Swaine, L. 1987). The intent of the marketing program for Kluane is to develop the park as *"the premier accessible wilderness recreation area in the Yukon."* This market position statement is reinforced by Kluane's exceptional resources and status. In addition to the park's natural attributes, Kluane is a World Heritage Site. Moreover, the park contains the Alsek, a Canadian Heritage River. These combine to offer recreation opportunities and a marketing image not available elsewhere in the Yukon.

Consumer trends indicate that an ageing population will continue to dominate North American markets (Clarkson Gordon/Woods Gordon, 1989). Increased life expectancy, a high median age (38 years) by the year 2000, and a trend to earlier retirements are forecast. Given that this mature population is also the most economically advantaged, the Kluane region should continue to see growth in this dominant market. While these visitors are seeking "adventure", a given reason for travelling, they are not seeking physically limiting activities or those that take inordinate amounts of time from their other destinations (Swaine, L. 1988).

The most frequent description of Kluane found in travel literature and CPS publications is that of *"Canada's largest mountain park with the largest non-polar icefields in the world"* (Swaine, L. 1987). Typically highlighted activities listed are those that require overnight travel, physical capability, or specialized skills (hiking, mountaineering, climbing).

The general impression given is that while Kluane is magnificent, it is largely inaccessible to all but those who have the time and capability to venture on extended backcountry trips. Accessible areas of Kluane are sometimes unconsciously downplayed as being pale examples of the "backcountry". Kluane's low




KLUANE *NATIONAL PARK RESERVE*

**ZONE I. SPECIAL PRESERVATION AREAS**

- Ia. Lower Alsek River
- Ib. Fraser Creek Fen
- Ic. Goatherd Mountain
- Id. Sockeye Lake and River
- Ie. Kaskawulsh-Alsek Grizzly Protection Area
- If. Bullion Creek Dunes
- Ig. Slims River Delta
- Ih. Loess Steppes/Sheep Mtn.
- Ii. Duke River Headwaters
- Ij. Mt. Hoge/Donjek Valley
- Ik. Steel Creek Alpine
- Il. Logan Nunatak

NOTE: Scale of zones encompassing small areas is exaggerated.

**ZONE II. WILDERNESS**

Any area within the park boundary not designated as Zone I, III, or IV.

**ZONE III. NATURAL ENVIRONMENT**

- IIIa. Access Road to Mush-Bates
- IIIb. Mush Lake Day-Use Area
- IIIc. Mush Lake
- IIId. Bates Lake
- IIIe. Dezadeash/Alsek Rivers Corridor to Toe of Lowell Glacier
- IIIf. Day-Use Area near Lowell Glacier
- IIIg. Low-Grade Route to Bear Camp

**ZONE IV. OUTDOOR RECREATION**

- IVa. Kathleen Lake Day-Use Area
- IVb. Kathleen Lake
- IVc. Alsek Day-Use Area
- IVd. Vulcan Creek Access Road
- IVe. Sheep Creek Access Road
- IVf. Sheep Creek Day-Use Area

**ZONE V. PARK SERVICES**

There are no Zone V areas in Kluane.

Figure 4. Zoning Plan.

direct park user statistics reflect this less than "user friendly" perception, especially when the large adjacent visitor market is considered.

Four aspects of park marketing and management require attention:

- the park is presently marketed as an area of largely unapproachable mountains and ice;
- the park is considered inaccessible by the vast majority of the visitor market passing Kluane;
- the visitor market requires greater awareness and advance information about the park and the Kluane region; and,
- visitor facilities and interpretation-related attractions, pull-offs and on-site exhibits along the highway corridor are required to cater to the majority market, the independent highway traveller.

To address these observations, CPS intends. . .

- to redefine the marketing image of Kluane from that of an inaccessible wilderness of spectacular icefields surrounded by the barrier of the Front Ranges to an accessible Yukon mountain wilderness. The market position of the park would simply be that of the premier accessible and protected wilderness area in the Yukon which provides as wide a range of wilderness recreation opportunities as is offered anywhere.

*Viewing wildlife* C.P.S.

- to develop Kluane as a wilderness destination by allowing more air and boat access into the park, by constructing trails of higher standard and by encouraging appropriate private sector initiatives which will allow people of all ages to reach the backcountry.
- to improve the advance information and promotion of the park, develop more interpretive and recreational opportunities for visitors along the bordering highway corridors, and create new short-duration access opportunities. These initiatives will shift emphasis to the region's predominant visitor group - the independent traveller described in sec. 2.4.2.4. It should encourage the short stay visitors to extend their visit in the area and take advantage of these new opportunities to experience the park firsthand.
- to work with other regional and territorial agencies, both public and private, to strengthen Kluane's marketing position.

## 3.4 ZONING

CPS uses a zoning system in national parks to classify land and water areas according to their need for protection and their capability to sustain visitor use. The system consists of five zones ranging from Zone I (Special Preservation) which emphasizes specific resource protection and permits only minimal (or no) public use, to Zone V (Park Services) which provides for centralized visitor services and park administration facilities (Fig. 5). There are no Zone V areas in Kluane.

- **ZONE 1 — SPECIAL PRESERVATION**

Specific areas or features which deserve special preservation because they contain or support unique, rare or endangered features or the best examples of natural features. Access and use will be strictly controlled or may be prohibited altogether. No motorized access or man-made facilities will be permitted.

- **ZONE II — WILDERNESS**

Extensive areas which are good representations of each of the natural history themes of the park and which will be maintained in a wilderness state. Only certain activities requiring limited primitive visitor facilities appropriate to a wilderness experience will be allowed. Limits will be placed on numbers of users. No motorized access will be permitted. Management actions will ensure that visitors are dispersed.

- **ZONE III — NATURAL ENVIRONMENT**

Areas that are maintained as natural environments and which can sustain, with a minimum of impairment, a selected range of low-density outdoor activities with a minimum of related facilities. Non-motorized access will be preferred. Access by public transit will be permitted. Controlled access by private vehicles will only be permitted where it has traditionally been allowed in the past.

- **ZONE IV — OUTDOOR RECREATION**

Limited areas that can accommodate a broad range of education, outdoor recreation opportunities and related facilities in ways that respect the natural landscape and that are safe and convenient. Motorized access will be permitted and may be separated from non-motorized access.

- **ZONE V — PARK SERVICES**

Towns and visitor centres in certain existing national parks which contain a concentration of visitor services and support facilities as well as park administration functions. Motorized access will be permitted.

Figure 5. CPS Zoning System

The majority of Kluane is zoned for wilderness or special preservation management reflecting the park's primary objective.

The zoning plan is Kluane's guidance for resource preservation, management, and visitor use (Fig. 4). As a result of new information and better assessment of existing Zone I areas, some special preservation zones have been deleted or reduced while others have expanded or have been added. Changes include the following:

- extension of the Zone I Alsek Valley Grizzly Protection Area to include a significant portion of the Kaskawulsh Valley deemed important for bear management.
- addition of an archaeological site judged to be of particular significance and requiring future investigation. This site will not be mapped for general information due to its sensitive nature.
- deletion of the Bates Lake Island and Shaft Creek Zone I areas. Investigation has shown that these sites require no special management intervention or recognition beyond standard resource conservation methods.

- reduction of the Donjek Valley special preservation area to coincide with more precise description and location of the significant vegetation and wildlife features associated with the area.
- extension of the Zone I area of Sheep Mountain to expand protection of the local Dall's sheep population.

Zone I *(Special Preservation)* has been designated for thirteen areas:

- Logan Nunatuk
- Steele Creek Alpine
- Mt. Hoge/Donjek Valley
- Duke River Headwaters
- Bullion Creek Dunes
- Sheep Mountain
- Slims River Delta

*Duke River Headwaters* C.P.S.

- Alsek/Kaskawulsh Grizzly Bear Protection Area
- Goatherd Mountain
- Lower Alsek River
- Sockeye Lake and River
- Fraser Creek Fen
- Airdrop Archaeological Site (not shown)

Appendix 3 describes each special preservation area.

Zone *II (Wilderness)* is by far the largest Zone in Kluane reflecting the predominant purpose and use of the park's resources. All areas not otherwise zoned are Zone II.

Zone *III (Natural Environment)* is applied to limited areas describing specific access routes or areas where controlled and limited mechanized access is permitted. The key feature of this zone is the intent to control access and maintain a low density of use or to ensure the preservation of a certain park character or experience for visitors. Zone III areas include:

- the existing low-grade route to Mush Lake, the Mush Lake day-use area, Mush Lake and Bates Lake;
- the Dezadeash and Alsek rivers from the park boundary to the toe of the Lowell Glacier; and,
- the existing low-grade route to Bear Camp near the confluence of the Kaskawulsh and Alsek rivers (for guided tours and raft pull-out).

Zone *IV (Outdoor Recreation)* provides for unregistered motorized access to selected areas. Zone IV park areas are very limited and are largely confined to boundary access points. They include:

- Kathleen Lake campground, day-use area, and access right-of-way;

*Picnic at Kathleen Lake* C.P.S.

- Kathleen Lake;
- the proposed day-use area and access right-of-way at the park boundary in the Alsek Pass;
- the access right-of-way and trailhead parking area on the east side of the Slims River delta; and,
- the Sheep Mountain Visitor Reception Centre, exhibit, access right-of-way to Sheep Creek and the proposed trailhead/day-use area.

Zone *V (Park Services)*: There are no Zone V areas in Kluane.

## 3.5 RESOURCE CONSERVATION

The purpose of the resource conservation program for Kluane is to ensure the preservation of the park's natural and cultural resources. The program is structured to meet Kluane's primary management objective, the preservation of the wilderness character of the park.

### 3.5.1 NATURAL RESOURCE MANAGEMENT PROCESS

In Kluane the Natural Resource Management Process (NRMP) has been undertaken to:

- develop a resource management program that will promote the conservation of the park as an outstanding example of the Northern Coast Mountains Natural Region;
- provide for the integration of resource management with the park management planning and other programs;
- facilitate the integration of the Environmental Assessment and Review Process (EARP) with planning and park operations on an ongoing basis; and,
- identify requirements of natural resource management activities to aid managers in budgeting and allocation of human resources.

The implementation of the NRMP has led to the establishment of a Park Conservation Plan (1984). This document will be revised and will continue to guide the resource conservation program in Kluane. Particular emphasis is placed on the implementation of the revised Park Management Plan in such a way as to ensure that the resource program is conducted in a timely fashion. While environmental assessment has shown the revised plan to be acceptable, that assessment is contingent on a funded and implemented resource conservation program. In addition, particular attention will be paid to the resource management concerns detailed in the following sections.

### 3.5.2 Aquatic Resource Management

In recent years, aquatic resource management has become a priority in the national parks program. The emphasis is to protect the ecological integrity of representative and unique aquatic ecosystems. Such an evolving policy has implications for a variety of visitor use and resource issues such as sustainable catch limits, establishing benchmarks, and the role of fishing in a given park area.

*Aquatic Research* C.P.S.

Kluane's aquatic ecosystems are characterized as cold, with relatively low productivity and in some cases, extreme sensitivity to disturbance. Their integrity cannot be taken for granted. Fishing pressures in the region have increased the value of (and the need for) pristine wilderness lakes as benchmarks for research and management.

CPS will develop an Aquatic Resources Management Plan for Kluane National Park. The intent of this plan will be to guide the long term management and protection of aquatic resources in the park. Specifically the plan will consider the following:

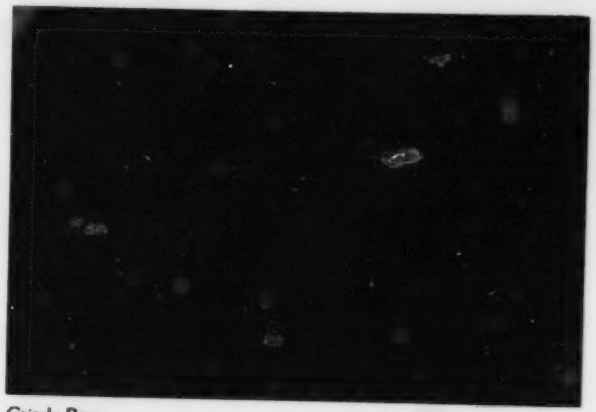
- representative benchmark and special aquatic area identification and preservation;
- water quality monitoring and management;
- the role of fishing in wilderness recreation; and,
- the handling and removal of aquatic biomass, possession and catch limits.

### 3.5.3 BEAR MANAGEMENT

Kluane protects one of the largest populations of grizzly bears in the world. These animals, beleaguered in other areas and extirpated from most of their former range, represent a tangible expression of Kluane's wilderness character.

CPS recognizes the difficulty in managing a wilderness grizzly population while encouraging public use. The intent of Kluane's bear management program is to minimize the chance of bear-people interactions.

- Every effort will be made to deny bears access to human foods and garbage in Kluane. In certain areas of the park, visitors will be required to use bear-proof food storage containers (provided by the CPS) while backpacking.
- All efforts will be made to minimize the likelihood of contact between bears and people. Trails and facilities will be located only after adequate research has been conducted to determine bear habitat and use.



*Grizzly Bear* C.P.S.

- Some grizzly bears use lands both inside and outside the park. Co-operation between park managers and Government of the Yukon officers will help to ensure rational management of these bears.
- A further step in protecting park grizzly bears will be taken with the establishment of a formal Grizzly Bear Protection Area (Zone I). This action will protect the grizzly population in the Alsek and Kaskawulsh river valleys. Human use and access in this area will be strictly controlled to avoid significant impact on grizzlies. No trails will be routed in this area. Overnight camping will be strictly controlled and may be totally excluded in some areas.

### 3.5.4 SHEEP MOUNTAIN AREA MANAGEMENT

The Sheep Mountain visitor centre, adjacent to the Alaska Highway, is presently the most heavily-visited site in the park. Uncontrolled visitor access on the lower slopes of the mountain has created some disturbance for the sheep population. Soil erosion and trampling of the vegetation is also evident. At the same time, CPS recognizes the exceptional opportunity presented by the proximity of the wildlife population for interpretation and visitor enjoyment.

- CPS will develop controlled access on designated paths to allow visitors to see the Dall's sheep while minimizing disturbance to the site or the animals.
- CPS will develop a Special Preservation Area Management Plan to help ensure the long-term preservation of these animals and their habitat.

### 3.5.5 MAN AND THE BIOSPHERE PROGRAM

Man and the Biosphere (MAB) is an internationally recognized program for conservation-based land use. The goal of the program is to establish a world-wide network of protected areas ("biosphere reserves") for the conservation of species diversity and for use in ecological research, monitoring, training and education.

The basis of a "biosphere reserve" is often a core area, such as a national park, surrounded by adjacent lands where multiple land use and less stringent development criteria apply. MAB provides a forum and a framework for governments, local residents, and private industry to communicate and co-operate in the sustainable and formative development of a region. This is particularly relevant in the Kluane region where such diverse land uses as mining, tourism, outfitting, conservation and related land management must co-exist.

The Kluane region is also suited for such a co-operative approach by nature of the fundamental conservation core provided by Kluane National Park Reserve and the Kluane Game Sanctuary. An added dimension in this area is the presence of the US/Canada boundary and comparable conservation land use at Wrangell-St. Elias National Park and Monument.

The Government of the Yukon has formally expressed an intent to examine the feasibility of a MAB designation for the Kluane region (Yukon Government. 1989.) CPS supports this initiative and will co-operate with Yukon officials to further the application of a MAB designation in the region.

### 3.5.6 PUBLIC SAFETY AND ENFORCEMENT

Kluane can present severe challenges to visitors. Because of the variety of skill levels needed to see some areas of the park and the possibility of unforeseen events, visitors can and do encounter situations where help is required.

CPS has developed and implemented a public safety program for Kluane. This program involves search and rescue plans, training of personnel, public education, maintenance of supplies and equipment, and carrying out operations. These components of Kluane's public safety program will be maintained and up-graded as required.

*Warden Rescue Training* C.P.S.

### 3.5.7 LAW ENFORCEMENT

CPS responsibilities for enforcement centre on the provisions of the *National Parks Act and National Parks Regulations* pertaining to resource conservation and public order. The resource conservation program's provisions for law enforcement helps ensure the protection of Kluane's natural and cultural resources. An effective program for enforcement will be maintained.

## 3.6 CULTURAL RESOURCE MANAGEMENT

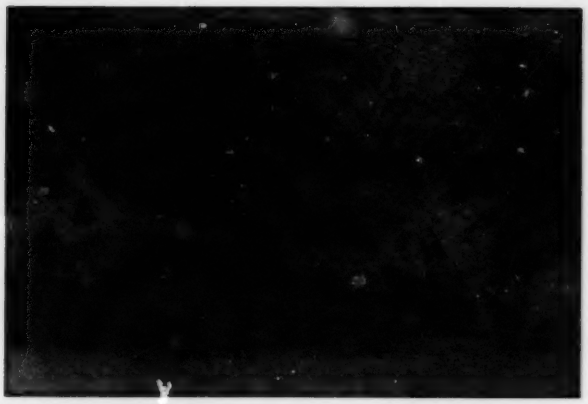
The mountain landscape of Kluane has awed, sustained, and challenged people for at least 8,000 years. Their experience has left a legacy of culture and material resources that are part of the attraction of the region. The research, protection, and presentation of these aspects of the park are the subject of a program of historical and archaeological research. This plan recommends a multi-year project to tap both the oral tradition of the region and the archaeological and historical resources pertaining to it. The result will enhance the protection of the cultural resources in the park, encourage additional local participation in the interpretation of Kluane's human history, and provide a richer understanding of the landscape for the visitor.

### 3.6.1 HISTORICAL RESOURCE MANAGEMENT

The major source for understanding of the human experience in Kluane is the oral tradition of the Southern Tutchone people. The Southern Tutchone pass on their vision of the world through their stories and traditions. Some investigation of these people has been initiated by Catherine McClellan and John Ritter but much remains to be done in the collection, arrangement, and synthesis of research material before it can provide a complete context for the archaeological resources and an avenue of understanding for the park visitor. The oral tradition is the best method for gaining an insight into alternative ways of interpreting the environment. In addition, continuing research on human history offers an opportunity for continued co-operation between the native community and the national park and involves local aboriginal people in the interpretation of their use of the area.

Park historical research is presently limited to Allan Wright's manuscript "Historical Narratives on Kluane National Park - Selected Topics" prepared in 1979. The manuscript provides basic information on the exploration and resource extraction activities in the Kluane area. A number of gaps in historical research remain, notably on the establishment and impact of the national park and aspects of northern research (particularly glaciology) and recreation (especially mountain climbing). A provision for addressing these gaps has been included in the recommended program.

- CPS will undertake research on the native history of the park with a special emphasis on the native oral tradition (for historical and archaeological purposes).



*Early Exploration in Kluane* C.P.S.

- Additional historical research will be undertaken with particular reference to park establishment, mountain climbing, research and exploration in the St. Elias Mountains.
- Following completion of these projects, CPS will assess the need for a general park history manuscript.

### 3.6.2 ARCHAEOLOGICAL RESOURCE MANAGEMENT

Knowledge of the history and prehistory of Kluane is incomplete. Archaeological research in the park dates only from 1978 (CPS. 1984). Known cultural resources do not represent (or at best, represent poorly) the area's prehistory, historical logging activities, the North West Mounted Police, the fur trade, the Dalton Trail, exploration, mountaineering, big game hunting or outfitting.

Archaeological investigation for this management plan review period involves site monitoring of selected, known resources, and archaeological surveys for areas where visitor activities will increase area use. The 1984 Kluane National Park Resource Description and Analysis recommended a program of continuing archaeological investigation (CPS. 1984). Based on this management plan and these past recommendations, a modest site specific archaeological program is proposed. A priorized list for archaeological investigation and the type of archaeology (excavation, recording, or monitoring) is included and detailed in the plan's Implementation Strategy. A similar archaeological program will be required in subsequent management plan review periods.

An oral research project for the purposes of gathering information on native activities in the park to help pin-point archaeological site locations is included as part of the historical resources research.

## 3.7 VISITOR ACTIVITIES, SERVICES, AND FACILITIES

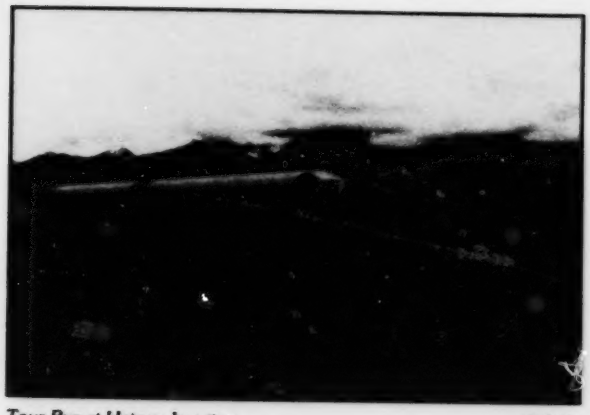
The purpose of the Visitor Activities Program is to ensure the provision of visitor services and facilities that are compatible with the management objectives of the park.

### 3.7.1 PARK VISITOR GROUPS

Visitors to Kluane may be described by their primary activity or motivation for visiting. Ten visitor groups have been identified for the park. They are:

1. People on organized bus tours
2. Automobile sightseers
3. Day visitors
4. People on outfitted tours
5. Overnight car campers
6. Boaters and fishermen
7. Winter recreationists
8. Backpackers
9. People on outfitted expeditions
10. Mountaineers

Visitor groups are described in greater detail in Appendix 4.



*Tour Bus at Haines Junction* C.P.S.

### 3.7.2 PARK VISITOR SETTINGS

Opportunities for park visitors to enjoy Kluane firsthand may be related to seven geographical settings for recreation activities (Fig. 6). These are:

1. The highway corridor where people can sightsee, view wildlife, walk short trails, view outdoor exhibits, and visit the park reception centre where they can get an in-depth understanding of Kluane and talk to park staff.

*Hiking an Old Mining Route* C.P.S.

2. The Mush and Bates lakes/Alder Creek Valley where two large lakes in a wilderness setting provide boating and fishing as well as adjacent backpacking opportunities.
3. The Kathleen Lake Valley where a large lake on the edge of the highway corridor provides car accessible camping, aquatic recreation, sightseeing and picnicing opportunities.
4. The Alsek Pass where a former mining road through a scenic valley provides day-use recreation and mountain biking opportunities.
5. The Alsek River Valley where the Dezadeash and Alsek rivers provide rafting and tour boat opportunities leading to the Lowell Glacier, one of the key locations in the park where resources, scenic grandeur and recreational activities converge with park themes.
6. The Slims River Valley where a large alpine tundra plateau and a major valley glacier can be reached during the course of a short backpacking trip, and a major wildlife area provides opportunities for day use, wildlife viewing, and photography.
7. The Icefields Range, Duke and Donjek valleys, and other large remote areas of the park where the highest quality wilderness experiences are provided (in some cases only with air support).

These seven settings will provide appropriate opportunities for all visitor groups.

| VISITOR TARGET GROUPS | VISITOR ACTIVITIES SETTINGS | | | | | | |
|---|---|---|---|---|---|---|---|
| | Hwy Corridor | Mush-Bates Valley | Kathleen Lake Valley | Alsek Pass | Alsek River Valley | Slims River Valley | Icefields & others |
| Bus Tours | ✓ | | | | | | |
| Auto-Sightseeing | ✓ | | | | | | |
| Day Visits | ✓ | | | ✓ | ✓ | ✓ | ✓ |
| Outfitted Tours | | ✓ | ✓ | | ✓ | ✓ | ✓ |
| Overnight Camping | ✓ | | | | | | |
| Boating/ Fishing | ✓ | ✓ | ✓ | | ✓ | | |
| Winter Recreation | ✓ | ✓ | ✓ | ✓ | | | |
| Backpacking | | ✓ | ✓ | ✓ | | ✓ | ✓ |
| Expedition Outfitting Services | | | | | | | ✓ |
| Mountaineering | | | | | | | ✓ |

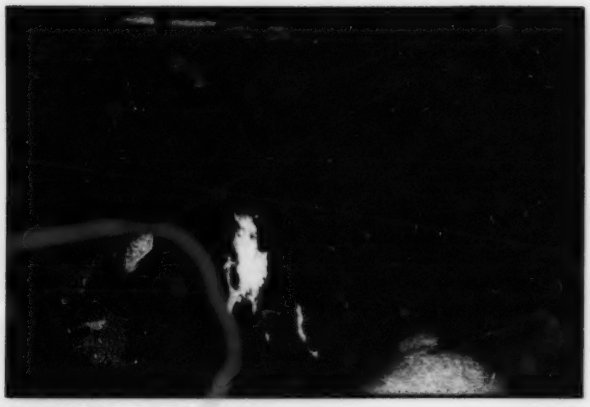
Figure 6. Visitor Groups and Activity Settings

### 3.7.3 INTERPRETATION

Kluane has four major interpretation themes used to categorize the stories associated with the park's resources. These are:

- The Icefields
- Man in the St. Elias Mountains
- Life on the Edge of the Icefields
- Origins of the Landscape

The Visitor Activities Program will ensure that there are opportunities for each visitor type to learn about the four major themes of Kluane and to experience their representative resources on a firsthand basis. Figure 7 illustrates the relationship between these themes and Kluane's recreational settings.



*Campfire Talk at Kathleen Lake* C.P.S.

- First-hand experience of the "Icefields" theme will be provided to park visitors in the Alsek River Valley and Icefields settings. The Alsek setting will serve a wide range of visitor types, essentially anyone who chooses to hire the services of a watercraft outfitter for a trip to the Lowell Glacier or who hires an air charter operator for a one day trip to the glacier or to provide a ferry service to the area to begin a longer backpacking trip. The Icefields setting will serve mountaineers, people who undertake a cross-country skiing expedition into the icefields either on their own or by hiring an outfitter, backpackers beginning their hike on a glacier at the edge of the icefields and those people who choose to hire an air charter operator to take them on an air tour of the icefields.
- First-hand experience of the "Man in the St. Elias Mountains" theme is best offered to park visitors in the Slims River Valley setting and, to a lesser extent, in the Highway Corridor. The Slims River-Valley setting is designed to serve backpackers but day-hikers will also be able to walk in to the historic resources at Bullion Creek. The Highway Corridor setting is best suited to presenting aspects of the more recent history of the park, the construction of the Alaska Highway and mining activities.
- First-hand experience of the "Life on the Edge of the Icefields" theme is best offered to park visitors in the Highway Corridor setting at Sheep Mountain and at Kathleen Lake, in the Alsek River Valley and in the Slims River Valley. The theme will also be presented in the Alsek Pass and in parts of the Icefields setting. The Highway Corridor setting will best serve people on bus tours, highway travellers and day-visitors. The Alsek River Valley setting will serve people choosing to hire guides to take them down the river to the Lowell Glacier or people rafting on their own. The Slims River setting will best serve backpackers.

| THEMES AND RESOURCES | VISITOR ACTIVITIES SETTINGS | | | | | | |
|---|---|---|---|---|---|---|---|
| | Hwy Corridor | Mush-Bates Valley | Kathleen Lake Valley | Alsek Pass | Alsek River Valley | Slims River Valley | Icefields & other |
| The Icefields | □ | □ | □ | □ | ■ | ◧ | ■ |
| Life on the Edge of the Icefields | ■ | □ | ◧ | ◧ | ■ | ■ | ◧ |
| Man in the St. Elias Mountains | □ | □ | □ | □ | ◧ | □ | □ |
| Origins of the St. Elias Mountains | ◧ | □ | ◧ | ◧ | ◧ | ◧ | ◧ |

QUALITY OF VISITOR EXPERIENCE *RELATIVE TO* PRESENCE OF ACTUAL RESOURCES
*AND/OR*
CALIBRE OF THEMATIC INTERPRETATION

□ ◧ ◧ ■

LOW → HIGH

Figure 7. Park Themes and Activity Settings.

- First-hand experience of the "Origins of the St. Elias Mountains" theme will be best offered to park visitors in the Highway Corridor, Icefields, Alsek Pass and Alsek River Valley settings. The best resource for presenting this theme are the mountains and the Shakwak Trench. However, this theme can be presented almost anywhere in the park.

### 3.7.4 PRE-TRIP SERVICES

The comprehensive park information package, a comprehensive reference for potential visitors, will be upgraded in quality and distributed to people inquiring about Kluane. This will allow better trip planning and give visitors options for using the park and perhaps extend their stay in the region. CPS will continue to liaise with other tourism agencies and promote joint marketing ventures with related destination areas.

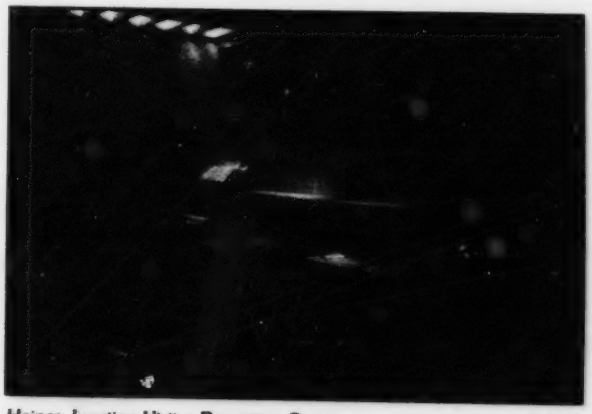
### 3.7.5 ENROUTE SERVICES

Park publications will continue to be distributed at "gateways" to the Kluane region; Beaver Creek, Haines (Alaska), Watson Lake and Whitehorse. Another important enroute need is to upgrade advance highway signs. There will be highway orientation exhibits at the eastern, northern, and southern approaches to the park interpreting Kluane and the region. Park boundary and identification signs will also be improved.

### 3.7.6 ARRIVAL SERVICES

Visitors will need reception services at three locations: Haines Junction, Sheep Mountain, and Kathleen Lake.

Staff at the visitor reception centre in Haines Junction provide comprehensive arrival services. The centre also provides in-depth information in the interpretation/exhibit hall and a slide program on the park. The information desk and the regional orientation program provided on video-discs are joint Yukon-Canada services. The visitor reception centre will be analyzed to assess the need for future services.



*Haines Junction Visitor Reception Centre* *C.P.S.*

The Sheep Mountain Visitor Reception Centre has been reconstructed to better serve the 35,000 travellers who stop there each summer. Staff will continue to greet people, provide orientation and interpret the resources of the area. A new interior exhibit for the centre is under development and will be installed in 1991 to complement the revised exterior exhibit on Dall's sheep installed in the spring of 1990.

Campers and day visitors to Kathleen Lake will be served by an on-site exhibit, information kiosk and kitchen shelter. The contractor who operates and maintains the campground will greet visitors and provide information whenever possible.

### 3.7.7 DEPARTURE SERVICES

Departure services in Kluane will not be extensive. The highway signs and exhibits will provide a sense of departure and reinforcement of park interpretation themes. The comprehensive information package will provide visitors with material which they can read on the continuation of their journey after leaving the Kluane region.

### 3.7.8 EXTENSION SERVICES

All visitors should have opportunities to learn about Kluane's themes and to appreciate its incomparable wilderness resources. The park interpretation program will carry out extension programming in Yukon through the use of publications, video tapes, and personal programming when resources permit. To raise the awareness level among Canadians of its significance, the park will also be represented in national and regional promotions, advertising and extension programming. Whenever possible, the park will be promoted jointly with other Yukon tourism destinations.

### 3.7.9 IN-PARK SERVICES

In-park services are designed to ensure that all visitor groups have opportunities to enjoy appropriate recreational activities in settings that provide them with a firsthand experience of Kluane. The following sections describe the development of specific services or facilities in each of Kluane's activity settings (Fig. 8).

#### 3.7.9.1 HIGHWAY CORRIDOR

The Kluane region drive bordering the park is one of the most scenic auto experiences in the Yukon. The highway corridor will cater to organized bus tours, auto-sightseers, and overnight campers. The experience offered here will be short duration stops at selected pull-offs and on-site exhibits. Scenic views and interpretation of key features along the park periphery will highlight these developments.

Over 180,000 people a year travel the region's highway corridors. They may be travelling in cars, recreation vehicles, or in buses. They also have a wide variety of recreation equipment such as canoes, mountain bikes, and backpacking equipment. Most of these travellers are strongly motivated to reach Alaska and are not planning to spend more than a part of the day in the Kluane area.

Studies show that regional visitors have a poor advance awareness of Kluane and are unaware of the park's features, facilities or opportunities (Swaine, L. 1988).

*Sheep Mountain Exhibit* C.P.S.

However,, these people have some flexibility built into their travel plans and could take part in opportunities of short duration offered by the park. Even though most people may spend only a few hours in the region, they can still enjoy and photograph the wilderness scenery and wildlife of the park as they drive the highway. They can learn more about the park by viewing roadside exhibits, audio-visual programs at Haines Junction, visiting the Sheep Mountain Visitor Reception Centre and perhaps walking one of the short self-guiding trails.

A proportion of these travellers could be convinced to spend more time in the region, perhaps even overnight. A small proportion already camp in the park at Kathleen Lake or at one of the nearby territorial campgrounds. Others may stay in local commercial accommodation. The park will improve its advanced information and promotion of opportunities to try to increase the numbers of highway travellers who do change their travel plans and stay longer in the area.

These visitors could then enjoy longer day hikes, such as the Auriol Trail and the proposed Alsek Pass trails. The new day-use facilities at Kathleen Lake and in the Alsek Pass could also be used. They could participate in guided events, enjoy mountain biking on designated trails, short canoe trips, and fishing. Visitors could participate in any day-long outfitted trips that may be offered by the private sector. Winter day visitors can enjoy cross-country skiing on both groomed and ungroomed trails.

- In concert with the Government of the Yukon, CPS will develop a series of highway corridor pull-offs, exhibits, and signs to promote the awareness and interpretation of Kluane.

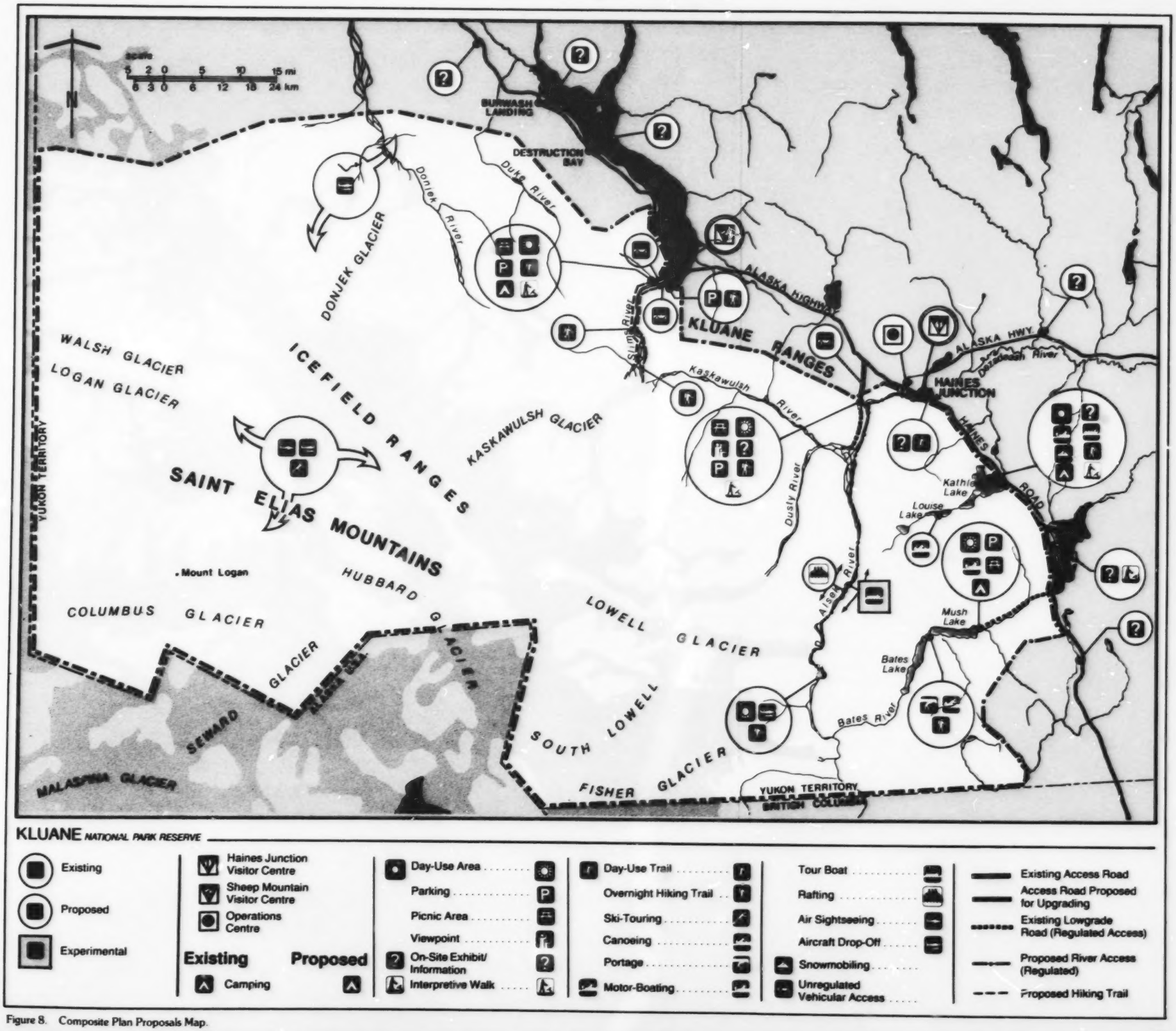
#### 3.7.9.2 MUSH AND BATES LAKES/ ALDER CREEK VALLEY

Prior to park establishment the Alder Creek Valley provided access to two large lakes in the interior of the southern Kluane area for boating, fishing, and hiking. An old mining road (one lane track) was traversed by vehicles capable of fording two stream crossings. CPS intends to re-establish this low-density use of the Mush and Bates lakes area under controlled and fixed-capacity conditions. The primary visitor experience will be low-density backcountry aquatic recreation (Fig. 9).

The intent of this project is to allow access for expanded backcountry wilderness recreation in the southern areas of the park. The area is particularly important for local, regional and territorial residents who would be the primary users. Without the capability for limited, controlled, motorized access to and on Mush and Bates lakes, access to the interior of this region would require several days additional travel, severely impeding backcountry use. Local outfitters also view this area as an important component in the tours they offer.

Zoning is intended to provide a spectrum of backcountry recreation opportunities. The potential for local outfitters to provide a shuttle capability to and across Mush and Bates lakes is excellent and CPS intends to work with outfitters to provide this service in support of backcountry recreation opportunities.

- CPS will maintain the existing low-grade/low-volume road from the Haines Highway to Mush Lake. No bridging will be constructed.
- A primitive day-use area and campground will be provided at the Mush Lake terminus.
- A self-registration quota based on the ability of the lakes to sustain a low-density aquatic recreation and day-use area and campground capacity will be developed.




**KLUANE** *NATIONAL PARK RESERVE*

- Existing
- Proposed
- Experimental
- Haines Junction Visitor Centre
- Sheep Mountain Visitor Centre
- Operations Centre

| Existing | Proposed |
|---|---|
| Camping | |

- Day-Use Area
- Parking
- Picnic Area
- Viewpoint
- On-Site Exhibit/ Information
- Interpretive Walk
- Day-Use Trail
- Overnight Hiking Trail
- Ski-Touring
- Canoeing
- Portage
- Motor-Boating
- Tour Boat
- Rafting
- Air Sightseeing
- Aircraft Drop-Off
- Snowmobiling
- Unregulated Vehicular Access
- Existing Access Road
- Access Road Proposed for Upgrading
- Existing Lowgrade Road (Regulated Access)
- Proposed River Access (Regulated)
- Proposed Hiking Trail

Figure 8. Composite Plan Proposals Map.

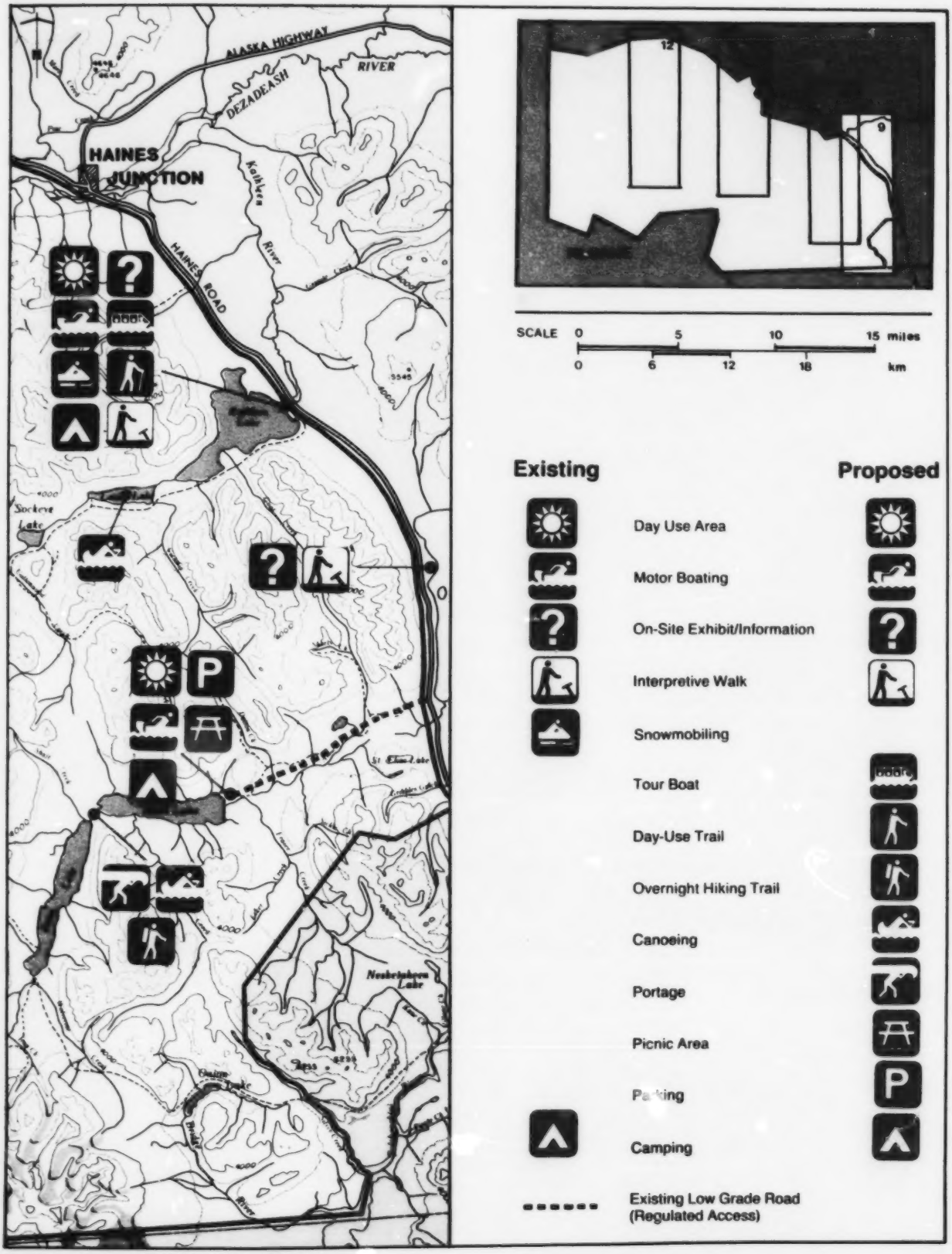



Figure 9. Mush and Bates Lakes/Kathleen Lake.

- Mush Lake will be zoned to allow controlled motorboat use.
- Motorboats on Bates Lake will be permitted for shuttle purposes only to facilitate extended wilderness recreation and will require a Superintendent's permit. The intent of this permit is to restrict the use of motorcraft to lake transport purposes only.

*Mush-Bates Road* C.P.S.

- A trail system will be developed around the Mush-Bates area and will eventually be linked to the Alsek Valley-Lowell Glacier via a Goatherd Mountain route.
- CPS will investigate the placement of a commercial key-lock canoe operation on Mush and Bates lakes.
- Zoning for Bates Lake will be reviewed upon completion of an area trail system with a view to eliminating the need for shuttle motorcraft.

### 3.7.9.3 KATHLEEN LAKE

The Kathleen Lake area will continue to be managed as the park's focal point for highway-accessible aquatic-based recreation and vehicle camping. The campground and day-use area provide easily accessible day and overnight recreation near the park's periphery. Continuing recreational development will concentrate on interpretation and day-use trail facilities (Fig. 9).

Kathleen Lake presents the best area for compatible multi-use and family-oriented recreation. The past recreation use of Kathleen Lake, proximity to highway access, and the capability of the area to sustain visitor use with minimal environmental impact makes the area ideal for a concentration of visitor activities Picnicking, boating, fishing, beach activities, car camping, and interpretive walks are the primary visitor experiences.

Visitor facilities at Kathleen Lake are excellent. CPS intent for the review period is to build on the attraction of these facilities and concentrate on interpretation and day-use walks and trails, better integrating the area with its peripheral attractions such as the Cottonwood Trail and Louise Lake. The primary winter use of Kathleen Lake is ice-fishing for which snowmobile access is maintained. Since there are excellent local and regional opportunities for snowmobiling outside the park, Kathleen Lake will remain the only area designated for such access.

- Kathleen Lake will be zoned for general motorized access, including winter snowmobile access to facilitate ice-fishing recreation.
- Sockeye and Louise lakes will remain Zone I (*Special Preservation*) and Zone II (*Wilderness*) respectively in aid of the continuing aquatic resource management of these waters.

*Boating on Kathleen Lake* C.P.S.

- CPS will investigate the placement of a commercial key-lock canoe operation on Louise Lake.
- CPS will develop short interpretive walks and day-use trails suitable for more elderly visitors and families, the predominant visitor groups.
- CPS will continue to acquire private cottage holdings on Kathleen Lake as they become available. Management intent remains to return the entire lakeshore for general public use.

### 3.7.9.4 DEZADEASH-ALSEK VALLEYS

The Dezadeash-Alsek valleys have features not accessible elsewhere in Kluane, particularly the geomorphological features of Recent Lake Alsek. An existing mining track from the Alaska Highway near Bear Creek crosses three kilometres of the Kluane Game Sanctuary to the park boundary and extends some eighteen kilometres further to Sugden Creek. It is the intent of CPS to develop the compatible access potential of this corridor.

The proximity of this area to the Alaska Highway allows the provision of quality park access without extensive in-park road construction (Fig. 10). Proximity to Haines Junction, the regional population and service centre, provides an additional location advantage. The day-use/viewpoint area would also provide interpretive exhibits and walks. These facilities would cater primarily to the independent highway traveller, the largest target market passing through the region (72% of total traffic). The visitor experience will be a short duration opportunity to gain access to a major interpretation exhibit area.

*Dezadeash River — Alsek Pass* C.P.S.

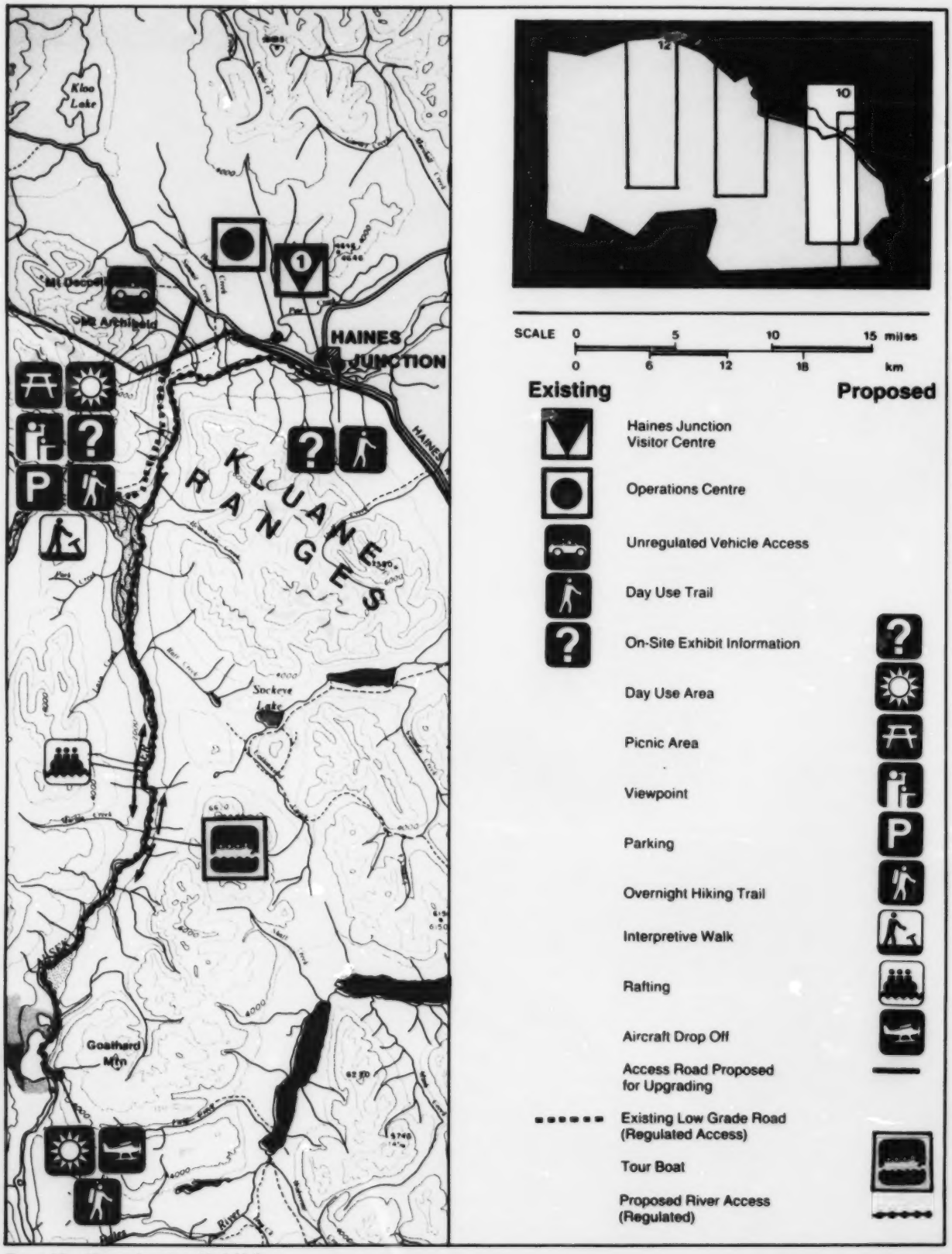


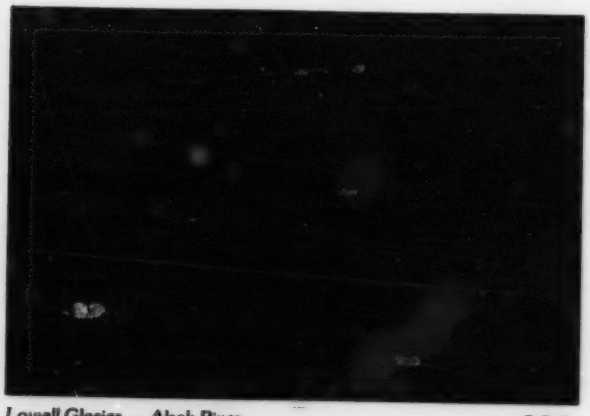

Figure 10. Haines Junction/Alsek Valley.

Views of the Recent Lake Alsek beach ridges will be graphic illustrations of Kluane's glaciation theme and an opportunity to view the scenery beyond the Front Ranges.

The Alsek River provides a route to a spectacular glacier through an area that has almost no present use. The development of a boat tour to the Lowell Glacier along this Canadian Heritage River would present minimal if any conflict with other users. Market analysis showed that a one-day boat tour to the Lowell Glacier was "*by far the most popular proposal for all visitor groups*" (Swaine, L. 1987). Strategic market analysis by regional Socio-Economic Services corroborates this conclusion (CPS. 1988) as does the Yukon's tourism plan, Yukon 2000 (Yukon Government. 1988).

It is believed that confining access along the river is also the best approach to avoiding conflict with park bears. Preliminary screening did not identify unmitigable impacts and a feasibility-trial period is deemed to be warranted.

The tour would begin and end in the village of Haines Junction. A designated feasibility-trial period and corresponding zoning will allow CPS to test the concept for environmental impact mitigation, logistical requirements and the administrative details required to involve the private sector in the activity. If unmitigable impacts should arise the concept will be abandoned and the river corridor rezoned accordingly.



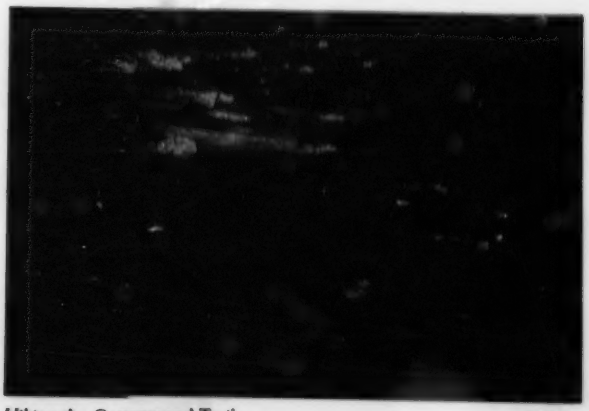
*Lowell Glacier — Alsek River* C.P.S.

The Dezadeash and Alsek rivers will provide rafting and boating opportunities. Visitors can experience a leisurely day float to Alsek Pass or an extended rafting trip to and beyond the Lowell Glacier. A one-day motorboat operation to the Lowell Glacier, if viable, will be a substantial tour to the edge of the Icefield Ranges for those visitors not inclined to fly or for those without the time for a three-day float tour. The Alsek River Valley would provide the premier ground level tour to the icefield's edge.

- CPS will work with the Yukon government and local residents to develop a general vehicle access road in the Alsek Valley from the Alaska Highway through the Kluane Game Sanctuary to the park boundary.
- A day-use interpretation exhibit and observation area will be provided inside the park boundary to cater to highway travellers.
- CPS will investigate the feasibility of providing a commercial shuttle operation to take visitors from the day-use area to an overlook near the junction of the Kaskawulsh and Dezadeash rivers (Bear Camp area). The Zone III (*Natural Environment*) designation of the road ends at this point.
- The existing mining road will be maintained and zoned to accommodate controlled vehicle access beyond the day-use area (Zone III - *Natural Environment*).
- CPS will test the feasibility (technical, logistical, environmental, and economic) of a boat tour from Haines Junction to the Lowell Glacier via the Dezadeash and Alsek rivers. The intent of CPS is to develop a one-day commercial tour to the Lowell Glacier.
- Rafting on the Dezadeash and Alsek rivers (both private and commercial) will be encouraged. Raft pick-up will be permitted at a designated point along the Sugden Creek road by permit. Aircraft landings will be permitted at the Lowell Glacier to pick up visitors on extended raft trips, for day-use, and especially to facilitate backcountry wilderness recreation in the area. All landings will be controlled by permits.

### 3.7.9.5 SLIMS RIVER VALLEY

The Slims River Valley on the Alaska Highway will continue to be developed as the premier highway-accessible backpacking trailhead and day-use area for northern Kluane. The mix of a short highway stop, extended wilderness recreation, day-hiking and the interpretation of themes such as glaciation, the Kluane gold rush and wildlife make the area particularly important for visitor activity development on the North Alaska Highway. The valley provides a relatively easy hiking experience for visitors to see Kluane's alpine tundra and a major valley glacier. The valley is also the premier day-hiking area in Kluane where the chance to view wildlife is virtually guaranteed.



*Hiking the Cottonwood Trail* C.P.S.

The new visitor centre at Sheep Mountain will remain the primary visitor facility for the northern Kluane region (Fig. 11). Future proposals will build on the existing developments of the Slims area, and will complement the visitor pattern that has made the Slims Valley the primary visitor access area of the park. Over 33,000 visitors stop at the Sheep Mountain facility in an eight week period. This number will increase as the enhanced quality and capacity of the services become known.

An emphasis on day-use and short interpretive trail development is particularly suited to the nature of visitation along the Alaska Highway and will serve as the catalyst for improving the visitor activities function in the area. The development of a route to Observation Mountain will allow an alternate for hikers to the Kaskawulsh Glacier should grizzly bear sightings force closure of one or the other side of the valley. Closure of both sides is uncommon.

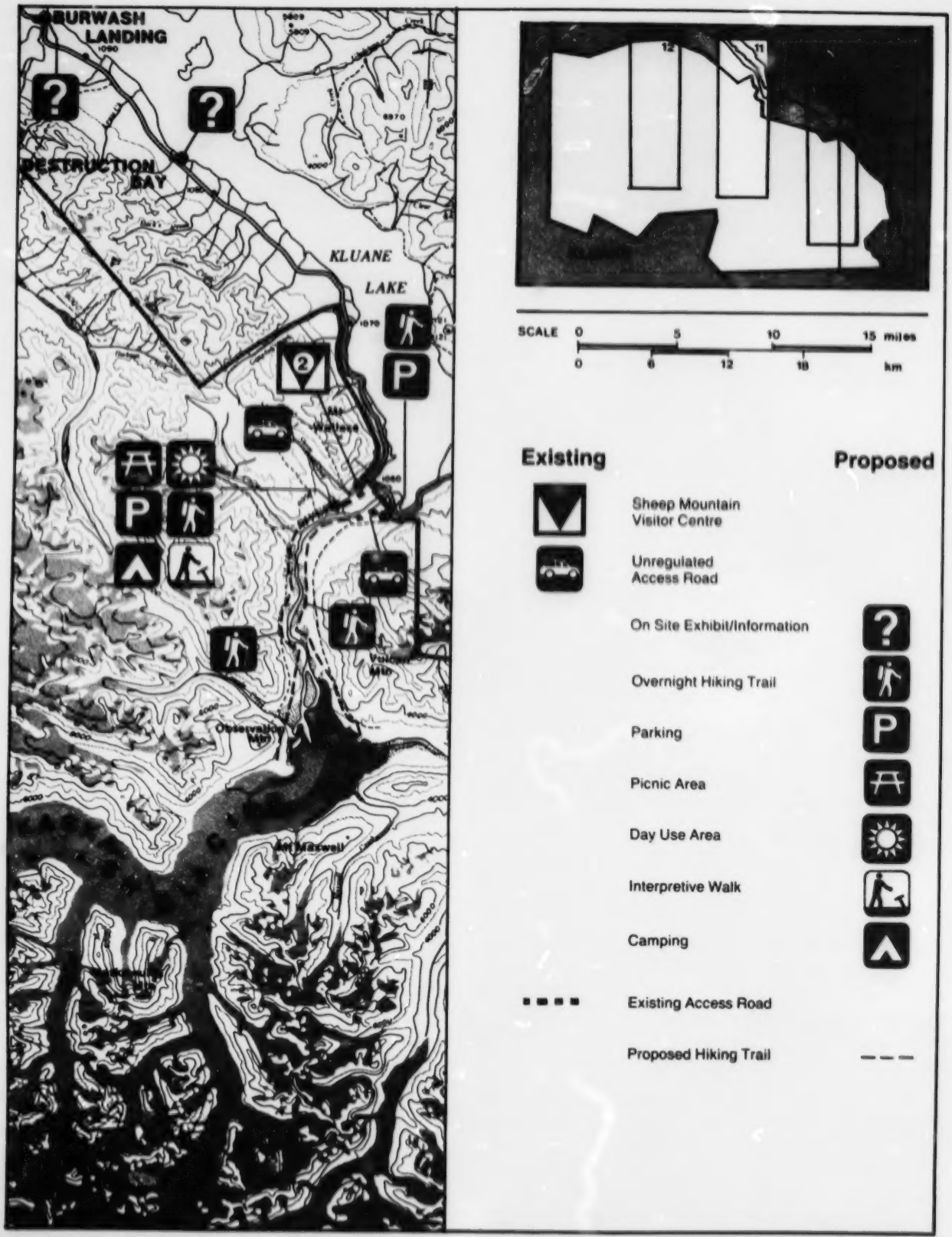



Figure 11. Slims River Vally/Kaskawulsh Glacier.

Particular resource management attention will be paid to specific issues such as intensive grizzly bear management for the entire Slims Valley and for Special Preservation Area (Zone I) management for Sheep Mountain.

**Slims Valley - East**

- The eastern side of the river valley was the proposed site of a public access system to the Kaskawulsh Glacier described in the 1980 Park Management Plan. For technical, financial, and other reasons, this proposal has been abandoned.
- The existing old Alaska Highway alignment will be maintained to the edge of Vulcan Creek fan as general access to a trailhead parking/staging area.
- A trail will be developed to the Kaskawulsh Glacier.
- Bear management will continue to be a high priority in the entire Slims Valley. All registered hikers will be required to use bear-proof food containers provided by CPS.

**Slims Valley - West**

- The west side of the Slims River Valley, particularly the Sheep Mountain environs, will remain the primary focus of visitor facilities in the area.
- A short interpretive trail will be developed at Sheep Mountain to facilitate observation of Dall's sheep while minimizing disturbance of the animals or their habitat.
- The existing road alignment to Sheep Creek will be maintained at its present standard for general public access.
- A primitive day-use/trailhead facility will be developed at Sheep Creek.
- A trail will be built from Sheep Creek to Observation Mountain.

### 3.7.9.6 DUKE AND DONJEK RIVERS AREA

The Duke and Donjek rivers area presents exceptional opportunities for extended wilderness recreation. The terrain lends itself to hiking without the need for developed trails. Visitors can experience the highest quality wilderness recreation Kluane has to offer. Access and support for visitors will often be by air. (Fig. 12). CPS intends to maintain this area for wilderness backcountry use of the highest order.

While this north Kluane area presents superb wilderness recreation, the distances involved in penetrating the region generally require air support. CPS intent is to work with air charter firms to identify the best ways to provide access, support and egress in this vast area. Both CPS and regional air carriers are aware of the need to control aircraft use so as to minimize disturbance to other park users or wildlife.

- Facility development in this region is unwarranted. CPS intent is to increase awareness of the area's recreation opportunities through better marketing and backcountry information.
- CPS will work with regional air charter operators to identify drop-off and pick-up points in the region to facilitate backcountry wilderness recreation support. All landings will be controlled by permit to prevent conflicts with other visitors.

### 3.7.9.7 THE ICEFIELDS

Two-thirds of the park and large adjacent areas of Alaska and northern British Columbia are blanketed by the Icefield Ranges. Kluane's glaciers are the dominant feature of the park and are unmatched in Canada. The Icefields contain Canada's highest mountains including Mt. Logan, the highest, at 5950 metres. Visitors can see a network of massive valley-bound glaciers such as the Steele, Hubbard, Kaskawulsh, Lowell and Donjek. For more adventurous visitors, the St. Elias Mountains provide world-class mountaineering and ski-touring opportunities.

Given the size of this region (over 15,000 sq. km) and the extremely rugged terrain, aircraft access is the only practical mode of access, and, for some visitor groups, the only way to experience the area.

Commercial outfitters offering ski tours and other extended expeditions in the Icefield Ranges are hampered by the necessity to haul equipment in and out after each trip. Industry spokesmen feel that a more flexible approach would enable them to provide more attractive trips for this market group.

- Air support for expeditions into the Icefield Ranges will continue to be allowed subject to the permit system now in use.
- Commercial outfitters making repeat trips will be permitted, on a trial basis, to establish seasonal tentcamps in the Icefield Ranges subject to conditions specified for siting, operation, and removal of such equipment.
- CPS will seek to encourage greater industry support for developing the aircraft sightseeing potential of the Icefield Ranges and will continue to work with the aircraft charter industry to provide this service to a larger portion of the tourism market.
- Commercial and private independent ski touring in the Icefield Ranges will be encouraged.

### 3.7.9.8 TRAILS

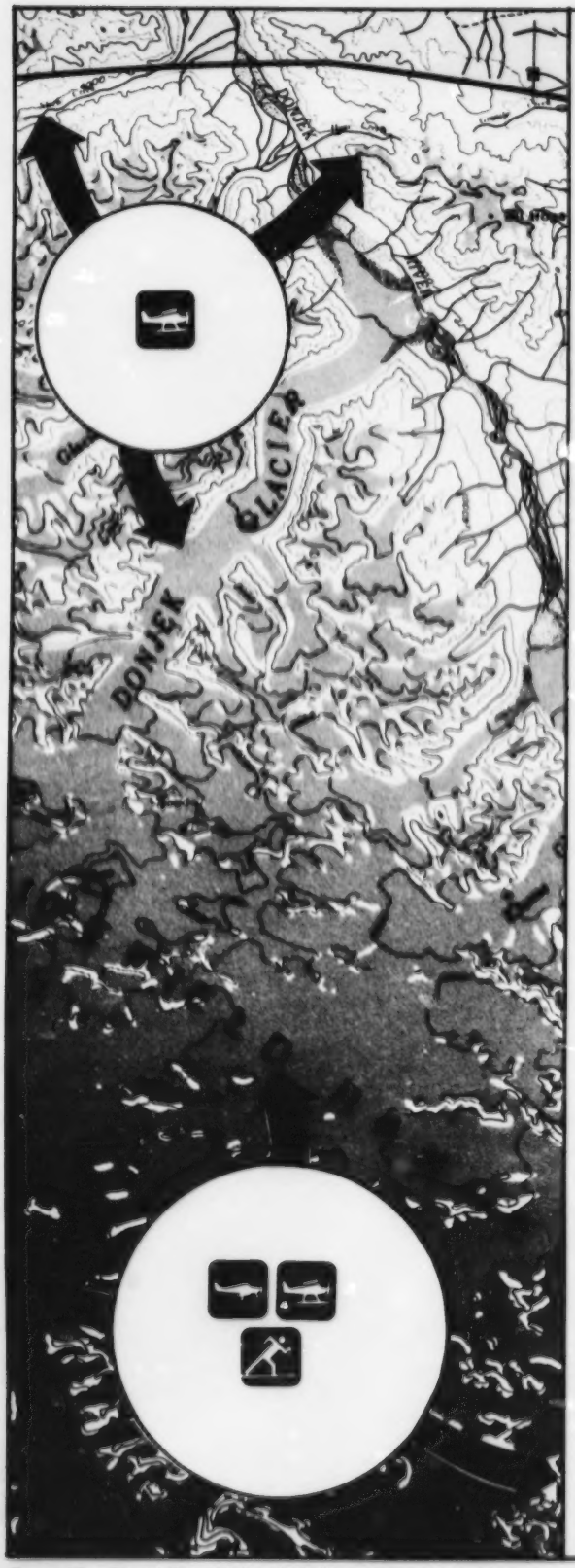
The 1980 Park Management Plan identified trails as the "*primary access system for visitor enjoyment and appreciation of Kluane's wilderness*" (CPS, 1980). Trail construction was to be "*primitive in nature*" and was to be limited to areas where open terrain or existing mining tracks could not be used. In consequence, Kluane failed to develop an integrated trail system befitting a renowned highway-accessible wilderness park. This is evidenced by Kluane's low backcountry overnight registration (less than 1000 people per year).

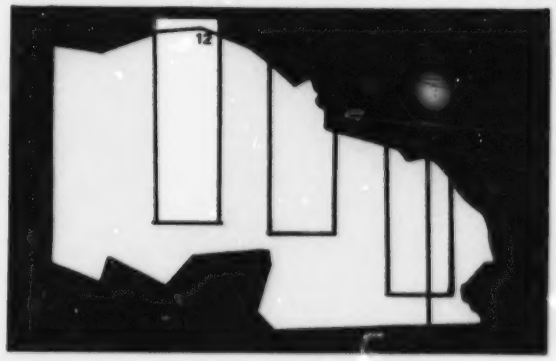
The trails that were developed are either short (4-8 km) trails or "routes" following a combination of creek beds, old mining tracks and game trails. Rather than an integrated system of trails based on park features, these are sometimes seen as purposeless routes as far as visitors are concerned. The lack of well marked long-distance trails discourages backcountry use.

Specific activity setting projects identified in this plan have their own trail components. However, there are a number of trails (or "routes") that have a separate profile. As noted, these trails have not received capital development. The park's small-scale maintenance capability (mostly geared for short-distance trails) has not been able to deal with major items such as re-routing, bridging, clearing, and maintenance.

CPS intent is to provide, over several years, development and maintenance funding for an integrated park trail system.

*Resting on the Trail* C.P.S.




SCALE 0 5 10 15 miles
0 6 12 18 km

**Proposed**

Aircraft Drop-Off

Air Sightseeing

Ski-Touring

Figure 12. Donjek River Valley/Icefields.

- CPS will develop an integrated trail plan and maintenance standards for Kluane.
- CPS will develop trail guides to complement the safe and responsible use of the backcountry. These guides would be suitable for co-operating association involvement (sales, distribution, reprinting, etc.).

### 3.7.10 AIR ACCESS

Aircraft use is an effective means to facilitate greater access into Kluane. Some of Kluane's scenery is best seen from the air. However, overflights and air support pose some uncertainties about environmental impact, marketability, administrative and logistical control.

Overflights can originate from several local airstrips as well as Whitehorse. Operational guidelines (flight paths, altitudes, volume) will be required. Air support for backcountry opportunities including hiking, mountaineering, ski-touring, rafting and photography is also required but will need careful control and monitoring.

*Air Tour over the Ice* C.P.S.

Studies show that aircraft visitation/support has been underutilized. "*With flightseeing acknowledged as an acceptable way to experience Kluane the activity would be in a better position to be marketed. Flights could be packaged with local accommodation, food and other attractions in the Kluane area. This would make flightseeing businesses more economically viable and more likely to offer guaranteed departures. As it stands, the casual opportunity to undertake flightseeing is extremely difficult to arrange, even if operators are willing*" (Swain, L. 1987).

It is CPS intent to facilitate air access opportunities in Kluane. Landings will be permitted at selected areas designated by the Superintendent on a permit basis. No landing facilities will be constructed. The park's Wilderness Management Plan and Public Safety Plan will be revised to reflect the increased prominence of this activity.

- CPS will develop compatible aircraft use guidelines and regulations.
- CPS will work with regional air operators to encourage their co-operation and compliance with air access provisions.
- CPS will continue to work with Yukon Tourism and air charter operators to build on existing air access marketing initiatives.
- All air access provisions will be subjected to the Environmental Assessment and Review Process.

## 3.8 REGIONAL INTEGRATION

Regional integration is a CPS policy commitment to ensure that the surrounding region is considered in the management and operation of a park. CPS staff are involved in a continuing program of co-operation and liaison with municipal and territorial governments, business and tourism associations and native organizations. The general objective of the CPS program is "*to encourage complementary development of regional resources in line with management plan recommendations and to ensure that regional needs and desires are accommodated to the fullest extent possible*" (CPS. 1980).

### 3.8.1 KLUANE REGION TOURISM PLAN

The Government of the Yukon is developing a Kluane Region Tourism Plan. Based on the general concepts of "Tourism 2000", Yukon's tourism strategy for the 1990's, the Kluane region is seen as the key element in tourism along the North Alaska Highway. The Kluane Region Tourism Plan is the mechanism to implement that strategy. The territorial strategy calls for a "*greater emphasis on the role of territorial or federal parks in tourism development*" (Yukon Government. 1988). As such, Yukon territorial officers and their consultants are working closely with CPS park staff to ensure a complementary and compatible approach. In general, Kluane National Park Reserve is seen as the "high end" of the wilderness recreation market with the surrounding region providing support services and other more facility-oriented attractions (e.g., lodges, R.V. camps, etc.) from which tours into Kluane National Park Reserve may be staged. Complementary planning and development are especially important along the highway corridors bordering the park where pull-offs, interpretive exhibits, trailheads, and sign programs must be a closely coordinated effort in order to succeed.

### 3.8.2 KLUANE REGION LAND USE PLANNING

The Department of Indian Affairs and Northern Development (DIAND), Government of the Yukon, and the Council for Yukon Indians (CYI) are presently conducting a land use planning program for the Kluane region. While the program excludes lands held under the National Parks Act, close liaison is being maintained with the Planning Commission and DIAND Land Use Planning Office in Whitehorse to co-ordinate a complementary approach with the revised Kluane Park Management Plan.

### 3.8.3 REGIONAL CONSERVATION STRATEGIES

Wildlife often cross park boundaries. Protecting the viability of these species, and ensuring that management actions are compatible with each jurisdiction requires special efforts, frequent communication, and an understanding of jurisdictional responsibilities. Other conservation-related initiatives are also furthered by interagency co-operation.

- CPS will continue to work with territorial government and native authorities for the better management of transboundary wildlife species.
- Co-operation with Alaska and Yukon authorities to further a potential Man and the Biosphere program for special areas such as the Klutlan Glacier and other Kluane Game Sanctuary areas will be maintained.
- Co-operation with United States National Park Service authorities for the joint UNESCO World Heritage Site (Kluane and Wrangell-St. Elias national parks) will be continued.

- Recognition of the Yukon/Canada joint responsibilities (e.g., water quality) with respect to the Alsek River as a Canadian Heritage River will be maintained.

## 3.9 ENVIRONMENTAL ASSESSMENT AND REVIEW PROCESS

CPS policy requires that all developments, plans and activities occurring on national park lands or using CPS funds be subjected to the Environmental Assessment and Review Process (EARP).

The purpose of this process is to assess possible environmental consequences of proposed projects as early as possible. Projects are assessed at the concept, predesign and design phases initially. This preliminary screening enables any significant environmental concerns to be raised and dealt with as early as possible.

Overall assessment of the Kluane National Park Reserve Management Plan has not identified any major significant or irreversible environmental impacts. Although some of the proposals do contain aspects that are likely to generate some environmental impacts or contribute towards a cumulative effect, CPS believes that these impacts can be adequately mitigated so that the overall wilderness aspects of the park, both environmentally and aesthetically, are preserved, and the possibility for a high quality visitor experience is maintained.

*Research Helps Avoid Impacts* C.P.S.

A key element towards the environmentally acceptable implementation of the various proposals will be the acquisition of resource information where needed, as well as feedback from ongoing monitoring and follow-up studies to allow for changes (including cancellation) or modifications to proposals to ensure the continued integrity of the Kluane wilderness.

A summary of the Environmental Impact Screening is given in Appendix 5.

## 3.10 SOCIO-ECONOMIC STATEMENT

The socio-economic screening of a management plan describes the present use of a park, estimates potential increases or decreases during the life of the plan, and states whether these changes will have a significant impact on any of the plan proposals. The socio-economic statement also describes the impact the park and its visitors have on the regional economy.

Appendix 6 details Kluane's socio-economic screening. Analysis indicates that plan proposals will not result in extraordinary changes to gross expenditures during the management implementation period. However, plan proposals should increase the average length of visitor stay in the region with a corresponding increase in visitor expenditures. Estimates show that management plan proposals could increase the regional labour income by roughly $900,000 and over 54 person years of employment.

# 4.0 IMPLEMENTATION STRATEGY SUMMARY

# 4.0 IMPLEMENTATION STRATEGY SUMMARY

A Park Management Plan is a decision-making document intended to serve as a management tool. Approval of a Park Management Plan does not constitute automatic approval of funding for implementation. Standard federal government financial management requirements, funding procedure approvals and the directives of central agencies responsible for government spending and accountability, will be adhered to at all stages of implementation. Implementation of this plan is dependent on the availability of financial resources in the CPS program.

To ensure that the provisions of a management plan are carried out in a timely and systematic fashion, an Implementation Strategy is drafted to accompany each Park Management Plan. An Implementation Strategy is a guide for detailing initial cost estimates, determining priorities and incorporating these into a schedule that can be used for entry into the CPS work planning and multi-year capital and operational forecasts. Finally, the Implementation Strategy is considered a reference level for managers to chart the progress of a management plan's implementation. Upon approval of the Kluane National Park Management Plan, the separate Implementation Strategy will become a formal working document to be monitored and adjusted as required with better estimates and more precise scheduling.

Responsibility for implementation rests with the Park Superintendent through the provisions of the Implementation Strategy. This strategy will then be the basis of the formal five-year management plan review required by the *National Parks Act*.

Priorization of implementation is based on the following criteria:

- the need to provide timely resource-based data in support of project design and the EARP requirements to screen them;
- the need to implement those projects associated with the majority market presently under-utilizing the park - the independent highway traveller. These projects relate primarily to the highway corridor setting (e.g., orientation exhibits, day-use developments) and commercial access proposals that private sector operators can implement (air and water access).

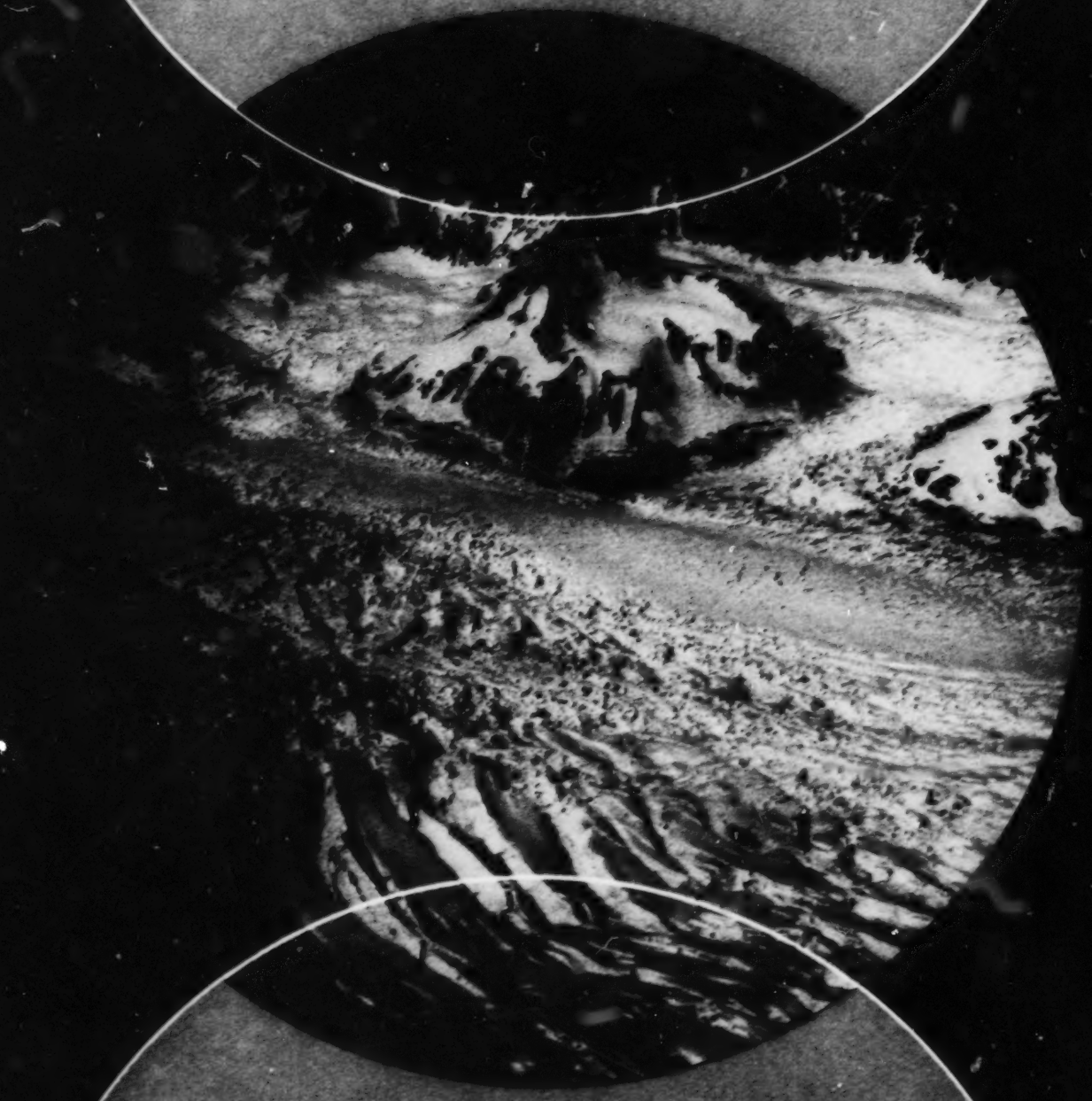
## SHORT TERM PRIORITIES (YEARS 1-5)

- Develop resource conservation data and analysis to ensure the effective management of grizzly bears and other park resources.
- Complete a Service Plan for the Visitor Activities program (incorporating the park's Interpretation Plan, Trail Plan and Highway Information program).
- Provide for vehicle access into the Alsek Pass and a variety of day-use and extended visitor opportunities on the Alsek River, in the Alsek Pass area and at the Lowell Glacier.
- Provide for limited and controlled vehicle access to Mush Lake and develop aquatic recreation opportunities on Mush Lake and Bates Lake.
- Develop better public information and park identification and awareness in the Highway Corridor and enhance day use opportunities for visitors.
- Provide the basis for an improved trail program and upgrade existing trails to provide better access for all visitor activity groups.
- Conduct history and archaeology research to ensure the protection of the park's cultural resources and to support the public information program.
- Encourage and control compatible air access to remote areas of the park.
- Conduct marketing research and analysis to ensure that investment in access and visitor opportunities are optimal.

## LONG TERM PRIORITIES (YEARS 6-10)

- Develop more day-use opportunities for visitors in the Kathleen Lake area to enhance visitor experience.
- Develop a well organized and properly designed trail system in the Slims River Valley to enhance visitor experience and better protect park resources.
- Link existing trails to create a greater diversity of hiking experience and greater trail access into the park.
- Develop data and analysis to ensure the effective management of aquatic resources in the park.
- Re-capitalize the Haines Junction VRC to maintain the delivery of information and interpretation about the park to all visitors.

# kluane



# APPENDICES

# APPENDIX 1

## EXECUTIVE SUMMARY OF PUBLIC COMMENT

Public interest in the Kluane Park Management Plan review has been widespread and sustained. Initially, CPS was widely criticized in the Yukon for failure to implement the access provisions of the 1980 Park Management Plan. The Municipality of Haines Junction investigated the background of these shortcomings and sought to ensure that their input to the revised plan was to be meaningful[1]. This initiative served to make "access" the predominant issue of the plan review.

Public meetings were held in two stages at Beaver Creek, Destruction Bay, Haines Junction, Whitehorse and Edmonton. Comments were also submitted in writing in the form of briefs, letters and mailback forms. Over 2000 people participated in the plan review.

From the outset, unanimous support for the preservation of the wilderness character of Kluane prevailed and, while few were against the concept of improved access, two seemingly irreconcilable factions developed early in the program, one conservation-based and the other concerned with regional economic development. The challenge presented to CPS "*is to create opportunities to leave dollars in the Yukon and also leave the landscape intact*"[2]. Plan proposals eventually received qualified support from participants and were generally perceived as an acceptable management approach between conservation and visitor use.

The organized conservation community applauds a stronger recognition of the importance and protection of wilderness and supports the concept of sustainable wilderness. Kluane is perceived by many as a "showcase of wilderness , an endangered non-renewable resource under our generation's short term care. However, the *unlegislated* definition of "wilderness" is major cause for concern. Different interpretations of the term "wilderness" may greatly affect the future level of protection or development.

Moderate concern was raised vis-à-vis selected precedent-setting activities and possible incremental development in the long term. In light of a difficult reconciliation between selected access and marketing proposals and the park wilderness objectives, respondents advocated scientifically researched benchmarks, sustained monitoring and strict remedial measures. CPS impact monitoring capabilities and the valid application of the Environmental Assessment and Review Program were questioned, particularly in areas where motorized transportation is to be permitted.

Tourism and development proponents were also generally pleased. Increased public access, a variety of experiences for park visitors, and attainable business opportunities are supported. A perception still remains that less physically-able visitors will not have access to the park and, as a result, concerns were expressed about the proposed limitations on motorized use. Highway corridor proposals were expected to serve as catalysts on some long-term benefits being sought by the regional private sector. Territorial and regional tourism officials praised the plan both for the new opportunities that it will create and for the manner in which it meshes with the long-term territorial vision for the Kluane area.

Many respondents had common operational concerns. Foremost is the management and protection of various park features and ecosystems in light of proposed developments. Dall's sheep, grizzly bears and other large mammals were predominantly mentioned but aquatic resources also raised questions of protection, management and conflict avoidance. Other comments concerned the quality and delivery of information and interpretation programs, waste management, trails and camping facilities.

Overall there is a qualified acceptance of the plan proposals. "*Compromises are necessary to appease both ends of the spectrum of opinion . . . but in doing so the initial acceptance of the general public will ensure that few changes will be demanded in the next decade or two and energies can be devoted to further the park developments*"[3]. However, CPS public credibility in the region was damaged by real or perceived failures of the 1980 Park Management Plan, and can only be regained through tangible indications that the revised Park Management Plan will be implemented in a timely fashion.

1. Muncipality of Haines Junction, 1989. A Question of Access: Klaune National Park. Report. 134pp.
2. Dr. Flo Whyard, Chairman, Phase I
3. Mr. Doug Bell, Chairman, Phase II

# APPENDIX 2

## PARK ESTABLISHMENT HISTORY

In 1942, recognizing the impact of the newly constructed Alaska Highway, a Privy Council Order of Canada established a national park reserve of over 25,000 sq. km. of land lying to the south and west of the Alaska Highway and the White River to the north. In 1943, this area was designated as the Kluane Game Sanctuary until such time as the *National Parks Act* could be amended to include and establish Kluane National Park.

However, there was little surveillance and enforcement capability in the area and the sanctuary status amounted to little more than paper protection. Over twenty active aircraft landing strips used for big game hunting were identified in 1972. Garbage, gas cans, and wildlife remains gave evidence of the nature of use. Controls on legal activities such as mining was minimal.

Mining interests effectively blocked creation of a national park until 1972. Following an extensive campaign by the National and Provincial Parks Association of Canada, a compromise was reached, whereby an area of over 22,000 sq. km. of the larger Kluane Game Sanctuary was set aside as a national park.

Following the establishment of surveillance and enforcement, clean-up of backcountry garbage and the purchase and elimination of all mining claims, the park's wilderness character was restored.

Official proclamation of Kluane took place in 1976 at which time recognition of aboriginal land claims was also given. The amended *National Parks Act* recognizes national park "reserves" - lands administered under the Act where land claims remain unsettled. The reserve status means that Kluane's boundaries may be adjusted to reflect changes arising from the claims process. In addition, the *National Parks Act* recognizes native traditional use of the park reserve.

# APPENDIX 3

## ZONE I - SPECIAL PRESERVATION AREAS

Kluane, because of its size and diversity, exhibits a relatively large number of Zone I areas. These not only serve notice of special protection criteria but also focus attention for park management and future research.

The following Zone I areas are designated:

**1. Logan Nunatak**

Nunataks are unique resources in the National Park System. They are islands of life surrounded by the inhospitable environment of the ice-fields. The ecology and evolution of plant and animal species in Nunataks is of scientific importance and is worthy of special protection.

**2. Steele Creek Alpine**

The Steele Creek Alpine area is protected because it is the best representation of the Northern Alpine Ecosystem within the park. Protection of this representative alpine area also ensures preservation of several species of rare plants that are located there. Alpine areas are sensitive to a variety of impacts and deserve special protection.

**3. Mt. Hoge/Donjek Valley**

The special resources of this area comprise an assemblage of plant and animal communities that are significant to the National Park System. The area supports one of the largest Dall's sheep populations on an all-season range in North America and has the northernmost population of Mountain goats on the Continent. These ungulates are preyed upon by wolves and grizzly bears. A number of rare and fragile plants and plant communities add to the total significance of the animal communities to produce a valuable ecosystem essentially unaffected by human influence.

**4. Duke River Headwaters**

The Duke River Headwaters provides a habitat for a plant, *Braya purpurascens* (R.Br.) Bunge, that is rare in Canada and has only been collected from this particular site in the Yukon.

**5. Bullion Creek Dunes**

The Bullion Creek dunes are significant features that have resulted from material being deposited by glacier winds and then modified to form unstable dunes. They are largely unvegetated and are extremely susceptible to disturbance.

**6. Sheep Mountain**

The Sheep Mountain area comprises a unique combination of valuable but sensitive resources that require special protection. Unrelenting glacier winds have resulted in the deposition of a thin veneer of loess on bedrock, moraines, and fans in the Sheep Mountain area. The various wind-formed features are excellent examples of undisturbed aeolian processes. The vegetation of the area and its relationship with the loess deposit is also of interest and furthermore supports a portion of a Dall's sheep population throughout its life cycle. The soils and deposits of the area are dry and highly susceptible to erosion caused by disturbance. Special protection measures are needed to perpetuate these fragile resources and their dependent plant and animal communities.

**7. Slims River Delta**

Deltaic ecosystems are dynamic resources that depend upon periodic disturbance caused by natural processes that are often influenced by humans. The Slims River delta is a unique system characterized by only 28 plant species that have adapted to the cycle of flooding and the saline soil conditions. The natural cycle of deposition of silt on this delta has been altered by the Alaska Highway. Special protection is merited to ensure its continued existence.

**8. Alsek - Kaskawulsh Grizzly Protection Area**

The Alsek and Kaskawulsh River valleys harbour the densest grizzly population in Kluane. Denning areas are found high in the alpine zone and the valleys provide the diversity of habitats and foods to support grizzlies year-round. Experience in managing visitor use in Kluane has shown that grizzlies can quickly habituate to humans and the subsequent management actions result in the death of bears. The special grizzly bear protection zone will protect the grizzlies by reducing their exposure to humans and the accompanying foods and garbage. These measures will preserve what is the best example of a wilderness grizzly population in the National Park System. In addition, the area will protect a number of special features including aeolian landforms such as dunes as well as rare plant communities.

**9. Goatherd Mountain**

The alpine area of Goatherd Mountain is protected because it is the best representation of the Coastal Alpine Ecosystem in Kluane National Park. A local goat population is another important resource of the area. The fact that this alpine area is one of the few ranges that supports goats in the absence of Dall's sheep is of scientific interest.

**10. Lower Alsek River**

The southern portion of Kluane is influenced by a moderate coastal climate which results in the expression of plant and animal communities differing from other areas of Kluane that are subjected to different regimes. The Lower Alsek River best represents this more productive ecosystem and protects species and communities not common to the Yukon or the National Park System.

**11. Sockeye Lake and River**

The area provides critical spawning habitat for the freshwater form of the sockeye salmon (*Oncorhynchus nerka*). This population originated from sea-running stock that was denied access to the sea by a surge of the Lowell Glacier, which blocked the Alsek River. The sockeye salmon is an important fish species in the ecology of Sockeye, Louise and Kathleen lakes and Kathleen River and it merits special protection. This species is also valuable in the interpretation of the recent geological and biological events of the region.

**12. Fraser Creek Fen**

The Fraser Creek Fen is a wetland complex of importance in Kluane. It represents a habitat that is rare in the park and supports nesting of the Trumpeter Swan, a species deserving special protection. Female moose and their calves are also known to use this habitat.

**13. Airdrop Lake/Hoodoo Mountain Archaeological Sites**

Hoodoo Mountain has one of the few undisturbed prehistoric obsidian quarry sites in Canada. Obsidian from this source has been identified in 13 other sites outside the park representing some 8,000 years of prehistoric use. Considered in total, these sites provide information about prehistoric exchange networks, manufacturing, and how hunting economies dependent on stone tools replenished this vital resource. Due to the sensitivity of these sites they will not be mapped.

## APPENDIX 4

## DESCRIPTIONS OF VISITOR ACTIVITY TARGET GROUPS

**Customers for Commercial Bus Tours**

These people are mostly American senior citizens. They can be contacted through the same advertising means that the tour companies use to reach them. They do not leave the immediate vicinity of the main highways bordering the park. They visit the two park visitor reception centres and roadside exhibits and may sometimes walk very short nature trails such as the Rock Glacier trail. They use sanitation and food services in commercial and government facilities and are accommodated in facilities reserved and mostly owned by the tour companies themselves. They now number about 20,000 per year. This number is not expected to increase or decrease significantly in the foreseeable future.

**Automobile Sightseers on their way to Alaska**

These people are about 80% American and 20% Canadian. They drive by the park in a few hours as they are strongly motivated to get to Alaska. They only have time to visit the visitor centres, roadside exhibits, day-use areas and short nature trails. They use local food and sanitation services. Their numbers are increasing slowly each year.

**Day Visitors**

These people participate in a wide range of day-use activities including day-hiking, picnicking, casual fishing, photographing wildlife and scenery and automobile sightseeing. Almost all day visitors are local residents. They use facilities such as nature trails, longer walking trails, the visitor centres and road-side exhibits. It is an objective of the park to increase the size of this user group by converting transient automobile sightseers into day visitors through better advance information and stronger promotion of the park. In the longer term, these people would then be more likely to come to the park to participate in some of the park activities requiring a longer stay such as camping, backpacking or participating in an outfitted trip into the park.

**Customers for Short-duration Outfitted Tours**

Kluane visitors who have most of a day available may participate in an outfitted tour of the park either by aircraft, watercraft or horse. These may be local residents, independent highway travellers with flexible itineraries or backcountry travellers with an extra day to spend in the park.

**Overnight Campers**

Overnight campers using road-accessible campgrounds stay at Kathleen Lake campground in the park. It is a semi-serviced facility which provides water and wood but no electricity to each site. Territorial campgrounds immediately adjacent to the park provide a similar service at comparable standards.

**Boaters**

Most boaters are Yukon residents as those people who bring boats to Kluane either live close by or have easily portable boats. Most boaters also want to fish. They now use the launching and docking facilities at Kathleen Lake and would use the proposed access developments that would allow them to boat on Mush and Bates lakes and on the Dezadeash River. A very small number of rafters now use the Dezadeash and Alsek rivers. This use can be expected to increase if air access from the lower Alsek River were to become more convenient.

**Winter Recreationists**

Almost all winter visitors to the park are Yukon residents. They cross-country ski on groomed and ungroomed trails in the highway corridor, fish through the ice on Kathleen Lake and operate over-snow machines on the ice of that lake.

**Backpackers**

Backpackers are self-sufficient backcountry travellers who hike the many trails and trail routes in the park self-contained. They generally begin and end their hike on the Alaska and Haines highways but they may choose to fly into the park and hike out in areas designated for such activity.

**Customers for Expedition-style Outfitted Services**

These backcountry visitors may backpack, cross-country ski in the icefields or raft on the Alsek River with an outfitter- guide. Air access and egress may be a part of the activity package for them.

**Mountaineers**

Members of mountaineering expeditions are self-sufficient and have a single purpose for their park visit.

## APPENDIX 5

## ENVIRONMENTAL IMPACT SCREENING

The following represents a summary of the Kluane National Park Environmental Impact Screening. A full report is available under separate cover.

**DEZADEASH-ALSEK VALLEY**

Potential impacts resulting from upgrading of the road through the Game Sanctuary to the park boundary can be readily mitigated and are expected to be minimal. Careful siting, visitor education and the avoidance of sensitive areas such as the Dezadeash River beach lines can likewise reduce potential impacts to a minimum.

Any of the aspects of this proposal intended for occasional use (i.e., interpretation or rafting) should cause only negligible impact. The use of controlled access will be the primary mitigative measure, along with user education and monitoring.

Although aircraft engine noise is an unavoidable byproduct of the proposed aircraft node near the toe of Lowell Glacier, this, and other less serious aircraft impacts can be mitigated through daily/seasonal operating restrictions and scheduling. Additional aircraft-oriented mitigation measures are identified under "Aircraft/Airtouring".

**KATHLEEN LAKE**

Since this lake is more accessible than most other areas of the park, CPS is prepared to manage this location for a higher level of impacts, based on past use. The area has received a steady, high level of use, resulting in considerable environmental impact to the campground and lake landings (boat launch) facility.

If the full extent of this proposal is implemented, there will be a slight increase in use and consequently, an increase in general impacts on the lake and surrounding area. These impacts can be largely mitigated, except for unavoidable visual and auditory effects.

### MUSH-BATES CORRIDOR (ALDER CREEK VALLEY)

The Kluane plan encourages use of this corridor which will result in increased environmental impact. Most of the anticipated physical impacts can be mitigated. However, there will be some reduction in the aesthetic quality of the area, which is off-set by the area's size, proposed access restrictions, and the expected low number of area users. Encounters of users should be minimal, therefore not violating the wilderness aspects of the corridor, particularly Bates Lake. Use of the area should be monitored and assessed on a frequent, ongoing basis to determine the need for further management actions. Two areas of particular concern are increased fishing pressure and the potential for bear-human interaction.

### SLIMS RIVER VALLEY WEST

Maintenance of existing facilities such as the segments of the old Alaska Highway is not expected to cause additional impacts beyond the level of disturbance already in existence.

The development of day-use and overnight trails, as well as a day-use facility, will require careful routing and the same types of mitigative measures as specified for "Trails" to minimize impacts.

Acquisition of new information and ongoing monitoring and follow-ups are required to reduce the potential for bear-human interaction.

### DUKE AND DONJEK RIVERS

It is anticipated that only small numbers of visitors will use this area, although access and therefore presence in the backcountry will be increased slightly. Potential impacts are very similar to those expected from hiking and are readily mitigable.

### TRAILS

Despite the proposed development of overnight, long-distance hiking trails as part of an overall park trail system, most use is expected to be focused on the shorter, day-use trails. Although trail degradation and impacts on adjacent resources can occur rapidly, careful routing, the anticipated low level of use, hiker education and other mitigation measures such as rehabilitation, closure, seasonal restrictions, and repairs, should minimize environmental impacts. A requirement of the trail system would be ongoing monitoring, particularly of the bear population to minimize bear-human interactions.

### ICEFIELD TOURING/MOUNTAINEERING

The potential impacts of this activity and associated proposals should be very minimal to non-existent due to the vastness of the area, and if reasonable care and good practices of overnight use are exercised by users. Considerations for the minimizing of impacts by aircraft should be similar to those in "Aircraft/Airtouring", and other landbased impacts can be effectively handled with the "Pack-in/Pack-out" policy.

### AIRCRAFT/AIRTOURING

Potentially frequent, regular air traffic over the park brings along with it a number of environmental impacts. Although the most serious impacts are associated with engine noise, this can be partially mitigated through strictly enforced aircraft operations guidelines and management. This includes control of the number of over-flights, daily and seasonal flight restrictions, altitude restrictions, and careful flight-path routing. In this way, sensitive wildlife populations and areas of the park can be avoided and the activity segregated as much as possible from other user groups and their respective wilderness experience expectations.

### HORSE USE

Many of the impacts caused by horse use are similar to those caused by hikers, but they occur more rapidly and over more extensive areas. Park control over this activity and the level of use, as well as restrictions and mitigation measures similar to those for "Trails" should minimize potential impacts. Of particular concern and requiring careful control is the avoidance of introducing exotic vegetative species into the park and minimizing competition with native ungulates.

### KATHLEEN LAKE COTTAGES

The ongoing acquisition by CPS of private cottages on Kathleen Lake, as well as cottage removal and site rehabilitation, produces minimal environmental impacts that are readily mitigated.

### REGIONAL INTEGRATION

Aspects of this process should be subjected to application of EARP, so that transboundary considerations can be assessed for their potential impacts on park resources. CPS should be in a position of providing input to and review of regional development plans not only to integrate its management objectives within the regional context, but also to minimize potential impact on the park.

### NATIVE LAND CLAIMS

Since Native Land Claims are at this time an unresolved issue, discussion of any potential environmental impacts on park lands associated with claims is largely speculative. Transfer of park lands and the potential for traditional land-use practices should be evaluated and resolved with the goal of preserving the heritage resources of Kluane National Park.

### AREA PLANNING

All plans and products of Area Planning will receive environmental assessment at their conceptual stage with continued application of EARP during their development through to completion.

## APPENDIX 6

## SOCIO-ECONOMIC ENVIRONMENT AND SCREENING

### ECONOMY

The economic base in the Kluane region is transportation and tourism along the Alaska Highway. Haines Junction, located at the intersection of the Alaska Highway and the Haines Road, serves as an administrative and service centre for government and tourist services, including the Kluane National Park administration. Mining, historically important in the region, is now of a minor economic importance in these communities.

### PARK CONTRIBUTIONS TO THE REGIONAL ECONOMY

Kluane National Park was created to provide preservation and recreation opportunities for the people of Canada. The residents of the Yukon and Kluane region derive economic benefits from the park as well.

Federal government expenditures on park facilities and expenditures by visitors provide an important source of employment and income primarily for the service and construction sectors.

The park contributes to the economy of the region and the Yukon through its payroll expenditures and purchases of goods and services. In addition, the existence of the park encourages expenditures by visitors. The effect of these expenditures on the Yukon economy is estimated by applying multipliers to economic indicators such as labour income and employment. Labour income includes wages and salaries while the employment indicator is expressed in person years of employment. The total economic impact of these expenditures is apportioned into direct and indirect effects to include spin-off impacts. Using economic multipliers[1] to express economic impacts takes into account how much of a given expenditure remains in a regional economy. Since the Yukon lacks a broad manufacturing and service industry, multipliers are much lower than for southern provinces.

## PARK SALARIES

Park administration between 1984 and 1989 has resulted in between 31 and 34 person-years of employment annually. In other terms, this results in about 25 full-time jobs and between 14 and 19 part-time jobs during the summer months. Total annual payroll for the park in 87/88 was $1.19 million. Using multipliers to estimate the direct and indirect impact of the labour income and employment for 1987/88, the following estimates were derived.

1. Details of multiplier and impact calculations presented here are contained in "Visitor Profile and Economic Impact Statement of Northern National Parks & Historic Sites" – Thompson Economic Consulting Services, 1989

**TABLE 1**

IMPACT OF CPS EXPENDITURES ON WAGES AND SALARIES ON THE YUKON ECONOMY 1987/88

| Type of Impact | Direct | Indirect | Total |
|---|---|---|---|
| Labour Income ($ million) | $1.187 | $0.119 | $1.306 |
| Employment person years) | 33.5 | 6.4 | 39.9 |

## PURCHASE OF GOODS & SERVICES & CAPITAL GOODS

The park administration purchases goods and services to operate its facilities and builds fixed capital assets in the park region. In 1987/88 total O&M and capital expenditures for the park were $2.85 million dollars. This includes one-time capital expenditures on the construction of the CPS maintenance compound.

**TABLE 2**

IMPACT OF CPS GOODS AND SERVICES AND CAPITAL EXPENDITURES ON THE YUKON ECONOMY 1987/88

| Type of Impact | Direct | Indirect | Total |
|---|---|---|---|
| Labour Income ($ million) | $.504 | $.433 | $.937 |
| Employment (person years) | 6.5 | 17.1 | 23.6 |

## VISITOR EXPENDITURES

Based on the 1987 Yukon Visitor Exit Survey, visitors to the Kluane region spent about $45 per person per night while in the Yukon. Using a total of 69,530 people staying an average of 1.06 days it is estimated that visitors spent a total of $3.3M, that is directly attributable to the park. It is estimated that 49% was spent on accommodation and food services, 34% on transportation, and the remaining 17% on recreation, retail and miscellaneous services.

**TABLE 3**

IMPACTS OF EXPENDITURES BY PARK VISITORS ON YUKON ECONOMY 1987/88

| Type of Impact | Direct | Indirect | Total |
|---|---|---|---|
| Labour Income ($ million) | $.870 | $.460 | $1.330 |
| Employment Impacts (person years) | 50.1 | 15.6 | 65.7 |

An independent study that surveyed business operator gross revenues in the region estimated total visitor expenditures during 1988 at $14.3 million.[2] This includes year-round expenditures in the entire Kluane region, including those that were not attributable to existence of the park and including expenditures by Yukon residents. The total impacts of these expenditures in the Yukon economy were estimated at $4.5M (labour income) and 118 person-years of employment.

**TABLE 4**

TOTAL IMPACT OF KLUANE NATIONAL PARK (RESERVE) ON THE YUKON ECONOMY 1987/88

| Type of Impact | Direct | Indirect | Total |
|---|---|---|---|
| Labour Income ($ million) | $2.561 | $1.092 | $3.653 |
| Employment person years) | 90.1 | 39.1 | 129.2 |

## SOCIO-ECONOMIC IMPACTS OF MANAGEMENT PLAN

The developments proposed in the revised management plan are an effort to meet the management objectives of the National Parks Policy and the results of the public consultation process. The proposed developments have direct impacts on the physical park environment, but may also have bearing on the socio-economic environment of the park. CPS policy requires that management plans contain a socio-economic assessment of each alternative or development.

2. "Kluane Region Tourism Development Plan", The DPA Group Inc., 1989.

Section 2.0 contains estimates of employment and labour impacts for the Kluane area for the 1987/88 year. It is the stated objective of the plan to increase the length of stay of visitors in the Kluane region, thereby increasing the level of visitor expenditures in the region. The plan proposals will not result in extraordinary changes to gross expenditures of park O&M and capital costs during the management plan implementation period. However, if the developments have the desired results, there should be an increase in the average length of stay in the park region, and therefore a corresponding increase in total visitor expenditures.

The 1987 Kluane Visitor Exit Survey calculated an average length of stay per party of 1.19 nights. This average includes the 36% of respondents that spent no nights in the region. Assuming that this proportion is reduced to 20%, it could mean that the average stay in the region may be 1.8 nights. The corresponding increases in expenditures would result in total visitor expenditures of $5.6M. Labour income and employment impacts from this total would be as follows:

**TABLE 5**

FORECAST IMPACTS OF EXPENDITURES BY PARK VISITORS ON YUKON ECONOMY

| Type of Impact | Direct | Indirect | Total |
|---|---|---|---|
| Labour ($ million) | $1.477 | $.696 | $2.173 |
| Employment Impacts (person years) | 85.1 | 26.4 | 111.5 |

Comparing these forecasts with Table 3, the management plan proposals would increase the labour income in the region by about $900,000 and add about 54.2 person years of employment.

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